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Catalog 1920-21

Announcements 1921-22

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UNIVERSITY CALENDAR

1921-1922

1921—	June 20, *Monday*	Summer School begins.
	August 12, *Friday*	Summer School ends.
	September 12, *Monday*	Summer Recess ends. Examinations for Admission. Registration of Students.
	September 13, *Tuesday*	First Semester begins.
	September 26, *Monday*	School for County Demonstration Agents begins.
	October 1, *Saturday, 2:00 p. m.*	Re-examinations.
	2:30 p. m.	Meeting of General Faculty.
	October 4, *Tuesday*	Citrus Seminar begins.
	October 6, *Thursday*	Livestock Roundup begins.
	November 24, *Thursday*	Thanksgiving Holiday.
	December 16, *Friday, 12:00 noon*	Christmas Recess begins.
	December 31, *Saturday*	Christmas Recess ends.
1922—	January 2, *Monday, 8:00 a. m.*	Resumption of Classes. Review Courses for Teachers begin.
	January 3, *Tuesday*	Ten-Day Courses for Farmers begin.
	January 28, *Saturday*	First Semester ends.
	January 30, *Monday*	Second Semester begins.
	February 11, *Saturday, 2:30 p. m.*	Meeting of General Faculty.
	March 4, *Saturday, 2:00 p. m.*	Re-examinations.
	May 27, *Saturday, 2:30 p. m.*	Meeting of General Faculty.
	May 28 to 30	Commencement Exercises.
	May 28, *Sunday*	Baccalaureate Sermon.
	May 29, *Monday*	Oratorical Contests. Annual Alumni Meeting. Class-Day Exercises.
	May 30, *Tuesday*	Graduating Day.
	May 31, *Wednesday*	Summer Recess begins.
	June 12, *Monday*	Summer School begins.

The date for the Boys' Club Week will be announced later.

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Professor of Education and School Management and Counsellor for the School of Disabled Soldiers.

CHARLES KENNEDY McQUARRIE,
State Agent in Charge of Farmers' Cooperative Demonstration Work and Home Economics.

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*Also Summer School, 1920.

Note—Officers of the University for regular session are arranged in order of seniority.

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*Also Summer School, 1920.

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Plant Pathologist to the Experiment Station.

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EDWARD WALKER JENKINS, B.Ped.,
District Agent for Farmers' Cooperative Demonstration Work in Central Florida.

RAYMOND W. BLACKLOCK, A.B.,
State Agent for Boys' Clubs.

JOHN BERT THOMPSON, B.S.,
Specialist in Forage Crop Investigations for the Experiment Station.

HAROLD GRAY CLAYTON, M.S.A.,
District Agent for Farmers' Cooperative Demonstration Work in North and West Florida.

RALPH STOUTAMIRE, B.S.A.,
Editor of Agricultural News Service and Instructor of Agricultural Journalism.

STEPHEN W. HIATT,
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*Also Summer School, 1920.

ADOLPH HARVEY BEYER, A.B., B.S., M.S.,
Laboratory Assistant in Plant Pathology and Entomology for the Experiment Station.

CAPTAIN FRANK L. CULIN, U.S.A.,
Assistant Professor of Military Science and Tactics.

CAPTAIN JOHN H. ATKINSON, U.S.A.,
Assistant Professor of Military Science and Tactics.

CHAS. E. BELL, B.S.,
Assistant Chemist to the Experiment Station.

COLONEL EDGAR SMITH WALKER, U.S.A. (Retired),
Instructor in Descriptive Geometry.

R. DEWITT BROWN,
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Student Assistant in French.

CLIFTON DREW JOHNSON,
Student Assistant in History.

DANIEL LOY LEISHER,
Student Assistant in Mechanic Arts.

DANIEL BURNETT KNIGHT,
Student Assistant in Mechanic Arts.

McCOY HUBBARD,
Student Assistant in Mechanic Arts.

ARTHUR NYLE SOLLEE,
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RUSSELL PAUL REDMAN,
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ANSON BORDEN DEWOLF,
Student Laboratory Assistant in Physics and Electrical Engineering.

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CHARLES EDGAR MORGAN,
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FREDERICK RENFROE WEEDON,
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Student Laboratory Assistant in Chemistry.

ORVILLE MARION BERG,
Student Laboratory Assistant in Chemistry.

JAMES LEWIS PIERCE,
Student Laboratory Assistant in Chemistry.

ANTHONY REGERO,
Student Assistant in Band and Orchestra.

CHARLES JAMES REGERO,
Student Assistant in Band and Orchestra.

RUDOLPH CHARLES LOHMEYER,
Student Assistant in Band and Orchestra.

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Student Assistant in English.

WALTER RUSSELL KING,
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BARNETT DAVIS ADAMS,
Student Assistant in English.

ROY LUDFORD DRIGGERS,
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*Summer School, 1920.

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Art.

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*Summer School, 1920.

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Librarian to the Law College.

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MARGARET PEELER,
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RUTH DREHER,
Graduate Nurse in Charge of the Infirmary.

RUBY NEWHALL,
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RACHEL THOMSON McQUARRIE,
Assistant to the Auditor.

EURY M. KNIGHT,
Bookkeeper and Cashier.

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In Charge of Department of Extension Teaching.

CLIFTON F. HODGE, PH.D. (Johns Hopkins),
Civic Biology.

CHARLES F. DAVIS, M.A.,
American Government.

ELLA M. ALLISON, PH.B.,
Review Courses.

MARY ELLEN FOLEY, B.A., B.J.,
Journalism.

JULIA ANNETTE KEELER, B.S.,
Industrial Art.

ALICE L. ALLISON
Mathematics.

CEDORA FUTCH, A.M.,
Mathematics.

J. REX FARRIOR, A.B.,
Latin.

MARION A. HALL, A.B.,
French and Spanish.

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†Regular faculty of University of Florida and State College for Women cooperating.

STANDING COMMITTEES OF THE FACULTY

The President of the University is *ex-officio* a member of all Standing Committees

ADMISSION

Professors Simpson, Farr, Davis, Crandall, Leake, Fulk, Moore, Willoughby, Roemer.

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DISCIPLINE

Professors Crandall, Fulk, Leigh, Ward, Cody, Holmes.

GRADUATE WORK

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LIBRARY

Professors Leake, Farr, Fulk, Miltimore, Shealy, Bristol.

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PUBLIC DEBATING

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PUBLIC FUNCTIONS

Professors Davis, Strong, Rogers, Culin, Reed.

PUBLICITY

Professors Riley, Leigh, Hathaway, Willoughby, Beck.

SCHEDULE

Professors Perry, Strong, Simpson, Black, Rogers, Roemer.

SELF-HELP

Professors Turlington, Floyd, Buchholz, Cockrell, Fattig, White.

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STUDENT PUBLICATIONS

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UNIVERSITY PUBLICATIONS

Professors Moore, Crow, Black, Roemer, Sweet.

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Professor of Military Science and Tactics.

CAPTAIN FRANK L. CULIN, JR., Infantry, U. S. Army,
CAPTAIN JOHN H. ATKINSON, Infantry, U. S. Army,
Assistants to the Professor of Military Science and Tactics.

FIRST SERGEANT WILLIAM WEAVER, Retired.

FIELD, STAFF, AND NON-COMMISSIONED STAFF

W. G. WELLS.....*Major*
L. J. TATOM.....*Captain and Adjutant*
A. B. DEWOLF.....*Color Sergeant*

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BAND

R. DEWITT BROWN, *Director;* E. A. KOPP, *Drum Major.*
C. J. REGERO, *Business Manager.*
J. H. MCDONALD, *Asst. Bus. Mgr. and Sec.-Treas.*
B. W. AMES, *Librarian.*
W. L. TOOKE, *Asst. Librarian.*

MUSICIANS—A. A. Ames, B. W. Ames, J. F. Angle, N. B. Bartlett, C. L. Bell, W. J. Cody, M. L. Cook, H. L. Edwards, W. F. French, F. H. Gore, R. H. Gott, B. M. Griffis, J. L. Jackson, C. D. Johnson, H. E. McClain, J. H. McDonald, I. H. McKillop, W. D. Mahannah, J. H. Mahn, H. C. Mink, E. W. Meisch, J. E. Melton, R. P. Perkins, C. Regero, J. S. Roach, H. Roberts, P. W. Stinson, R. M. Swanson, W. M. Tiller, W. L. Tooke, C. L. Walker.

GENERAL INFORMATION

RECENT GIFTS

Many of the state educational institutions of the South —among them those of Florida—have in recent years received substantial gifts. The University feels confident that its friends will continue to help in its upbuilding. All gifts, of whatever nature or value, will be gratefully acknowledged.

See also under Museum, Loan Funds, and College of Agriculture.

CHAIR OF SECONDARY EDUCATION.—This opportunity is taken of acknowledging the annual gift by the General Education Board of New York of a sum sufficient to maintain a Professorship of Secondary Education. Since June, 1920, owing to increased appropriations by this Board, it has been possible to extend greatly the work undertaken.

DEPARTMENT OF HYGIENE.—The University gratefully makes mention of the benefits derived from an appropriation by the U. S. Government of ten thousand dollars ($10,000) —contingent upon a like appropriation by the State—to be used in fostering the physical welfare of the students and in teaching hygiene.

SCHOLARSHIPS.—No method of contributing to the spread of higher education is more beneficent than to make it possible for a worthy but poor young man to attend his state university. The establishment of several scholarships is gratefully acknowledged—see pages 38-40.

Arthur Ellis Ham Memorial Scholarship.—The University here renders reverent and grateful homage to the memory of a former student, Captain Arthur Ellis Ham, who fell in battle at St. Mihiel on Sept. 14, 1918.

His will provided that one half of his military insurance should go to Smith College, of which his widow, Mrs. Elizabeth C. Ham, is a graduate, and the other half to the University, to be used in establishing at each of these institutions "a

scholarship for the annual benefit of some needy and deserving student." Mrs. Ham at once generously sent checks for the full amount, five thousand dollars ($5,000) each, to Smith and to Florida. The Board of Control gratefully accepted the bequest, and the Faculty, in its resolutions of sympathy and thanks, added that the scholarship should be known as the "Arthur Ellis Ham Memorial Scholarship."

Y. M. C. A. SCHOLARSHIPS.—The War Work Council of the Y. M. C. A., in addition to other recent gifts, generously set aside sufficient funds to permit of the giving during the past session of forty-three scholarships, of an average value of about sixty-three dollars ($63), to students that had served with the colors during the World War.

HISTORY

Florida has always manifested interest in higher education, and with this in mind has formulated many plans and established many institutions. As early as 1824 the foundation of a university was discussed by the Legislative Council. In 1836 trustees for a proposed university were named, but apparently accomplished nothing. *(Memoirs of Florida,* 1,168.)

Upon its admission to the Union in 1845, the State was granted by the General Government nearly a hundred thousand acres of land, the proceeds from which were to be used to establish two seminaries, one east and one west of the Suwanee River. This led to the foundation, at Ocala, in 1852, of the East Florida Seminary and of the West Florida Seminary, at Tallahassee, in 1856. The former of these institutions was, however, removed in 1866 to Gainesville.

The State Constitution of 1868 contained provisions for establishing and maintaining a university *(Art.* VIII, *Sec.* 2), pursuant to which the Legislature passed the next year "An Act to Establish a Uniform System of Common Schools and a University". Other attempts to establish a university were made in 1883 by the State Board of Education and in 1885 by the Legislature. Furthermore, the State Constitution of 1885 expressly permitted special legislation with regard to a university.

Meanwhile, in 1870, the Legislature had passed "An Act to Establish the Florida Agricultural College". This not fully meeting the terms of the "Land-Grant College" Act of Congress of 1862, the Legislature passed in 1872 a supplementary Act and the State received from the General Government ninety thousand acres of land in support of the proposed college. A site for this was selected in 1873, in 1875, and again in 1883—the third to be chosen being Lake City. Here in the autumn of 1884 the work of instruction was begun. An attempt was made in 1886 by this institution to have its name changed to the "University of Florida", a title it finally secured by the Legislative Act of 1903. Before this, in 1887, the Florida Agricultural Experiment Station had, in accordance with the terms of the Hatch Act, been established as one of its departments.

During these years, in addition to the three mentioned, there had come into existence three other State institutions of higher education: The Normal School, at DeFuniak Springs, the South Florida College, at Bartow, and the Agricultural Institute, in Osceola County. In 1905, however, inasmuch as these six institutions had failed to make satisfactory differentiation among themselves and to separate their work sufficiently from that of the high schools of the State, and inasmuch as the cost of maintaining all seemed disproportionate to the results obtained, the Legislature passed the "Buckman Act", the effect of which was to merge the six into the "Florida Female College" and the "University of the State of Florida". In 1909 an Act of the Legislature changed the name of the one to the "Florida State College for Women", of the other to the "University of Florida".

During the first session of the University a distinct Normal School, which included two years of Sub-Freshman grade, was maintained. In addition to this, instruction was given in agriculture and engineering, as well as in the usual collegiate branches. Candidates for admission to the Freshman class must have finished the eleventh grade of a high school. The Agricultural Experiment Station was a separate division, altho members of its Staff gave instruction to the students and the President of the University acted as its Director. The next year the Staff were required to devote their time exclusively to Station activities, and a special Director was

elected. The Normal School was abolished and instruction in pedagogy was transferred to the University proper. Two years of Sub-Freshman work were, however, still offered.

Upon the election in 1909 of Dr. A. A. Murphree to the presidency, steps were taken to reorganize the University. The present organization dates from 1910. The College of Law was added in 1909 and the departments offering instruction mainly to normal students were organized into a college in 1912. In 1913 the present entrance requirements went into effect. The same year a Summer School was established at the University by Act of the Legislature and the Farmers' Institute Work of the University and the Cooperative Demonstration Work for Florida of the U. S. Department of Agriculture were combined. On July 1, 1915, all the agricultural activities of the University were placed under the direction of the Dean of the College of Agriculture.

Immediately after the United States entered the World War the equipment of the University was placed at the disposal of the Government. During the summer of 1918 the College of Engineering was operated as the "University of Florida Army School", for the vocational training of soldiers. At the opening of the session of 1918-1919 all the regular activities of the University were subordinated to the task of training men for the armed forces of the United States. On Dec. 14, 1918, upon the mustering out of the Student Army Training Corps, the University again took up its regular work, altho it made liberal allowance in credits to students for the interruption of their studies caused by military service.

During the summer of 1919 the General Extension Division was established. The University also entered into contract with the United States Government to assist in the work of rehabilitating men disabled while in the armed forces of the country.

LOCATION

On the 6th day of July, 1905, acting under powers conferred by the Buckman Act, the State Board of Education and the Board of Control, in joint session, selected Gainesville as the location of the University. During the scholastic year of 1905-06, it was found necessary to carry on the work of the University at Lake City. Since the summer of 1906 the institution has occupied its present site.

The advantages that Gainesville presents as the seat of the University are numerous. It is centrally located and easy of access. It has well-paved, -lighted, and -shaded streets, an exceptionally pure water supply, and a good sewerage system. The citizens are energetic, progressive, and hospitable. The moral atmosphere is wholesome. The leading religious denominations have attractive places of worship.

INCOME

The annual income of the University, apart from Legislative appropriations, is derived principally from the following Federal grants: (a) The "East Florida Seminary Fund"—about two thousand dollars ($2,000); (b) the "Agricultural College Fund" bonds—about seventy-seven hundred dollars ($7,700); (c) one-half of the "Morrill Fund"—twelve thousand five hundred dollars ($12,500); (d) one-half of the "Nelson Fund"—twelve thousand five hundred dollars ($12,500). The total income thus derived amounts to thirty-four thousand seven hundred dollars ($34,700).

For the support of the Agricultural Experiment Station the Federal government makes two annual grants: (a) the "Hatch Fund" and (b) the "Adams Fund", each amounting to fifteen thousand dollars ($15,000).

See also Recent Gifts, Fellowships, Scholarships, Loan Funds, and Agricultural Extension Division.

EQUIPMENT

GROUNDS AND BUILDINGS

The University occupies a tract of six hundred and thirteen acres, situated in the western extremity of Gainesville. Ninety acres of this tract are devoted to campus, drillgrounds, and athletic fields; the remainder is used by the College of Agriculture.

The University is one of the few institutions in the United States that made plans before laying the foundation of a single building for all future development of the campus, as far as this could be foreseen. Consequently the campus presents an harmonious appearance. The liberality of the State has permitted the erection of buildings as fast as they were needed. They are lighted with electricity, supplied with city water, and furnished with modern improvements. These buildings are:

The two *Dormitories,* Thomas Hall and Buckman Hall, brick and concrete structures, three stories in height, sixty feet in width and three hundred and two hundred and forty feet, respectively, in length. They are built in fireproof sections, each containing twelve suites of dormitory-rooms and on each floor of each section a shower-bath, lavatory, and toilet.

The *Mechanic Arts Shop,* a one-story brick building, sixty feet long and thirty feet wide, with a wing thirty feet long and twenty feet wide. It is used, at present, as woodshop, blacksmith-shop, and foundry.

Science Hall, a brick and concrete building of two stories and a finished basement, one hundred and thirty-five feet long and sixty-six feet wide. It contains the classrooms and laboratories of the Departments of Chemistry and of Biology and Geology, as well as the University Museum.

The *Agricultural Experiment Station Building,* a brick and concrete structure of three stories and a finished basement, one hundred and twenty-five feet long and sixty feet wide. It contains the offices and laboratories of the Station.

Engineering Hall, a brick and terra-cotta structure, three stories high, one hundred and twenty-two feet long and seventy-three feet wide, with two one-story wings. One wing is used for boilers and machine-shop, the other (one hundred and eighty feet long by forty feet wide) is designed for woodshop, blacksmith-shop, and foundry. Engineering Hall provides offices, classrooms, laboratories, and drafting-rooms for the Departments of Civil, of Electrical, and of Mechanical Engineering, of Mechanic Arts, and of Physics.

The *Agricultural College Building,* a brick and concrete structure, three stories high, one hundred and fifteen feet long and sixty-five feet wide. It provides for classrooms, laboratories, and offices for the College, and for Extension Work.

The *University Commons,* a brick building of one story and basement, one hundred and fourteen feet long and forty-two feet wide, with a wing forty-nine feet long and twenty-seven feet wide. It provides a large dining-hall and kitchen. A wooden annex, one hundred and twenty feet long by sixty feet wide, is now used as a Y. M. C. A. "Hut".

Language Hall, a brick and stone structure of three stories, one hundred and thirty-five feet long and sixty-six feet wide.

It is the home of the College of Arts and Sciences and provides classrooms and offices for the Departments of Languages, History and Economics, Mathematics, and Sociology and Political Science, together with the administrative offices of the University. In the basement are the bookstore and the offices and presses of the *Alligator*.

George Peabody Hall, erected at a cost of forty thousand dollars ($40,000), the gift of the Peabody Board of Trust. It is a brick building, three stories high, one hundred and thirty-five feet long and seventy-two feet wide. It provides for the Departments of Education and Philosophy and for Teacher-Training Work. The general library of the University is at present in this building.

The *College of Law Building,* a brick and stone structure of two stories, one hundred and twenty feet long and seventy feet wide. It contains an auditorium, model courtroom, lecture-rooms and offices, library, reading and consultation rooms, cataloguing room, and quarters for the Marshall Debating Society.

Auditorium and Gymnasium, a brick and stone structure of two stories (one of which is mezzanine) and basement, one hundred and six feet long and fifty-three feet wide. It is heated by steam, is fully supplied with hot water, and is well lighted and ventilated. The main floor is used as an auditorium and gymnasium. A gallery extending around the whole room provides space for the spectators at gymnastic exhibitions. The basement contains rooms for the director and for University and visiting teams, and for lockers, shower-baths and toilets. Adjacent is a swimming pool, thirty-six feet long, twenty-four feet wide, and from four and a half to seven feet deep.

WOODEN BUILDINGS.—During the existence of the S. A. T. C., the Vocational Unit erected:

Two *Barracks,* each of two stories, sixty feet long and forty feet wide, and each accommodating sixty-six men. One of these buildings has been equipt as a hospital with accommodations for twenty-five men.

A *Garage,* one hundred and twenty feet long, and well arranged for repair work.

VALUE.—The value of the property used for the work of the University is about $1,000,000.

LIBRARY

The general Library contains about 33,000 volumes. Additional books are purchased as fast as funds are available. A special effort is being made to place on the shelves all books extant relating to Florida.

The books are classified and shelved according to the Dewey Decimal system, and are indexed in a dictionary catalog. Students are encouraged to use the catalog, and the indexes to periodical literature, and by free access to the shelves to become familiar with the books themselves. A taste for literature and information is being developed in many students who before entering the University have not had access to a good library.

As a designated depository of the United States government the Library receives annually several hundred bound volumes and many pamphlets. In addition much valuable material is received from the various state universities, colleges and experiment stations.

The Library receives about two hundred and fifty general and technical periodicals, the current numbers of which are to be found on the reading tables. These periodicals are bound as rapidly as the volumes are completed and are particularly valuable for use in reference work. The daily and weekly papers are to be found in the newspaper room. Thru the courtesy of the editors a large number of county and city newspapers of Florida are sent to the Library for the use of the students.

The University Library is glad to be of assistance to the teachers and high-school students of the State. Under reasonable regulations books are lent upon request. When it is impossible to send the material desired bibliographies with suggested sources of information are gladly furnished.

The technical departments possess special libraries, housed in their respective buildings, but accessible to all members of the University.

MUSEUM

By Act of Legislature of 1916-17 the University was made the home of the Florida State Museum. The Act further provides for a natural history and ethnological survey of the State; for scientific investigations looking towards the further development of its natural resources; for the collecting of

material of scientific, economic and civic value, whether pertaining to the mineral, vegetable, and animal kingdoms or to the aboriginal tribes and the early explorations and settlements; for a library; and for traveling exhibits to be kept in circulation among the schools of the State. Adequate funds for carrying out all the provisions of this Act have not as yet been provided; but, largely thru the generosity of some of our citizens, enough specimens and data are already in hand to permit the director to announce the opening of the State Museum.

The Museum contains at the present time more than two hundred and seventy thousand specimens, about one half of which have been carefully catalogued. Among the eight hundred and seventy-six recent accessions are perhaps most worthy of mention an herbarium of four thousand and eight hundred sheets presented by Dr. Samuel C. Hood, of Orlando; the R. D. Hoyt collection of more than eight hundred birds and four hundred sets of bird eggs; the John J. Ryman collection of more than two hundred birds and eight hundred sets of bird eggs; a complete collection of the mollusca of Alabama, presented by the late Dr. Herbert H. Smith, curator of the Alabama Geological Survey Museum; a large number of bird plumes, presented thru Secretary Gilbert J. Pearson, of New York, by the National Association of Audubon Societies; and the "Loring Memorial Collection", presented by General Loring's heirs, Mrs. William Loring Spencer and Mrs. M. C. Royston, of St. Petersburg. This last collection is of great historical and artistic value, besides being intrinsically worth many thousands of dollars.

Other valuable donations can, it is believed, be announced soon. Even now it is known that much material of historic and artistic interest has been left to the Museum by will and negotiations are under way for securing large exhibits. One good-sized library and a collection weighing more than three tons are already packed for shipment to the University.

In addition to these there are in the Museum a fair collection of the mollusca of Florida, containing more than eighteen thousand specimens; about nine thousand Florida fossils; more than five hundred Florida reptiles; more than ten thousand specimens of stone implements and pottery of the aborigines of Florida; besides thousands of specimens of

historic articles, minerals, insects, etc. The library of the Museum numbers about five thousand volumes and pamphlets.

Unfortunately, owing to the lack of rooms and cases, only a small part of this material is now on exhibition and of this part few specimens are arranged to the best advantage. A few rooms are, however, open every day but Sunday, from one to five P. M., and in these rooms are many objects of interest. Director Van Hyning is always pleased to be of service to visitors.

LABORATORIES

For the *Laboratories* and other equipment of the College of Agriculture, see pages 76 and 77.

The *Botanical Laboratory* contains enough dissecting microscopes and instruments and Bausch and Lomb compound microscopes, magnifying from 80 to 465 diameters, for the individual use of the students; a Zeiss binocular and a large compound microscope of very high power; two demonstration microscopes; and a McIntosh stereopticon, with projection microscope attachment. For work in histology there are hand microtomes, a sliding microtome, section knives, Miller's paraffin bath, and a supply of reagents, stains, and mounts; for studies in physiology there are germination boxes, nutrient jars, an osmometer, a clinostat, etc. An herbarium has been started, to which students each year add specimens, which they collect, identify, and mount. A case of reference books and periodicals is in the laboratory within easy reach.

The *Chemical Laboratory* is equipt with the apparatus and material necessary for instruction in general inorganic and organic, analytical, and industrial chemistry, as well as for more advanced work. It contains two delicate balances, a latest model polariscope, microscope, spectroscope, ample platinum ware (crucibles, dishes, electrodes, wire, and foil), and several pieces of apparatus for illustrating chemical principles.

The *Dynamo Laboratory*, providing for practical instruction on electrical machinery, occupies a portion of Engineering Hall. The principal machines are a 10-KW Type ACS General Electric synchronous converter, a 25-KW General Electric Type IB direct current generator, a 1-HP Westinghouse Type R motor, a 1-KW synchronous motor, and two 2-KW Westinghouse Type S dynamos, designed to be used either as genera-

tors or as motors. The switchboard panel for each machine is placed near it, but is connected to terminals on a main distribution board for the whole laboratory. Power is supplied by a 10-HP single-phase Wagner induction motor, connected with the city alternating current supply and driving the main shaft of the laboratory. The various machines are driven from this shaft, and can be thrown in or out by friction clutches.

The laboratory is also supplied with transformers, several types of arc lamps, and numerous measuring instruments of different ranges, chiefly of Weston make.

The *Geological Laboratory* contains the U. S. Geological Survey Educational Series of rocks. For the study of historical geology there is a collection of fossils illustrating the distribution and development of organisms; for the study of mineralogy there is a blowpipe collection of one hundred selected mineral species, an accessory blowpipe collection of miscellaneous minerals, a collection of fifty natural crystals, and a reference collection of choice mineral specimens.

The *Physical Laboratory* is well equipt with apparatus and meets the needs of such undergraduate work in physics as is usually carried on in the best American colleges.

The entire third story of Engineering Hall is devoted to the department of physics, as well as a lecture-room on the second story, seating 147, and provided with projection lantern. The quarters on the third story include a main laboratory, 53 by 27 feet; an electrical laboratory, 42 by 26 feet; an optical room, 22 by 15 feet, arranged so as to be effectively darkened; an office and private laboratory, 25 by 19 feet; a workshop and apparatus room, 42 by 19 feet; a classroom, 24 by 22 feet; and a number of storerooms. Water, gas, and several electrical circuits are led to all the rooms.

The *Psychological Laboratory* occupies six rooms on the first floor of Peabody Hall and is well equipt for class demonstrations, and for carrying on experimental and research work. As the demand arises new equipment will be added. In addition to the apparatus for the regular experimental work, the laboratory is equipt for carrying on mental and physical tests in connection with the work in educational psychology offered by the Teachers College.

The *Zoological* and *Bacteriological Laboratories* are well equipt for the work of instruction. In addition to the neces-

sary glassware and reagents, there are a number of high-grade microscopes; dissecting microscopes; one Leitz large compound microscope with mechanical stage and a full set of apochromatic objectives; two microtomes, one for celloidin, the other for paraffin sectioning; paraffin bath; sterilizers, both wet and dry; warm and cool incubators; dark-ground illuminator; balances; centrifuge; breeding cages; anatomical preparations and models; a number of the Leukart-Chun zoological wall charts; and one Bausch and Lomb projecting lantern with accessories. The departmental library contains a number of current periodicals, as well as the more important textbooks and reference works.

ENGINEERING

The *Mechanical Engineering Laboratory* has a large and a small vertical steam-engine, a pressure and a fan blower, a boiler-feed pump, indicators, steam-gauge and thermometer testers. The large water-tube boilers installed for the heating-plant are also available for testing purposes.

The *Testing Laboratory* has a 50,000-pound Riehle machine for testing the tensile, compressive, and transverse strength of materials, and a cement-testing machine with the necessary accessories. These machines are useful for testing materials used in road construction.

The *Computing Room* is furnished with all necessary tables and a library of about two hundred reference books for use in connection with the work of the mechanical laboratories and drafting-room.

The *Drafting-Room* is equipt with substantial oak desks and possesses the necessary minor equipment to accommodate classes of twenty-four students.

Surveying Instruments.—These consist of three surveyor's compasses; three wye and two dummy levels, and one precision level; two plain and four stadia transits, of which three are equipt with attachments for solar and star observations; one complete plane-table; and the necessary rods, chains, tapes, and minor apparatus.

Shops.—The Wood-Shop is provided with lockers, equipt with full sets of tools for bench work: Chisels, saws, squares, gauges, etc. The wood-working machinery consists of a

planer, a rip-saw, a band-saw, an iron combination saw table, a jointer, and a grindstone.

The Machine-Shop is equipt with an 18-inch Cady, a 16-inch Reed, a 16-inch Bradford, an 11-inch Star, and a Rivett lathe; a drill press; a Gray planer; a No. 1 Brown and Sharp miller; a Springfield shaper; a No. 2 Marvel hack saw; emery wheels; vises, and tools.

The Forge-Shop is equipt with six power-blast forges, one hand forge, six anvils, and a large supply of tools.

ATHLETIC

The University has provided a hard-surfaced athletic field, including football gridiron, baseball diamond, with grandstand and enclosed field, and ample tennis-court facilities. A basket-ball court and concrete swimming-pool are also located on the campus.

MILITARY

Military equipment of a value of more than $30,000 is available for military instruction.

GOVERNMENT

ADMINISTRATION

Board of Control.—The general government of the University is vested by law in a Board of Control consisting of five members from various parts of the State, appointed, each for a term of four years, by the Governor of Florida.

The Board of Control appoints the President and, upon his nomination, elects members of the Faculties, directs the general policies of the University, and supervises the expenditure of its funds. The Board also prescribes the requirements for admission, with the advice of the President and Faculties, and upon their recommendation confers degrees.

President.—The direct administration of all affairs of the University is in the hands of the President.

Deans.—As executive head each college of the University has a Dean, appointed from the Faculty of that college. These officers are responsible to the President.

University Council.—The President and the Vice-President of the University and the Deans of the several colleges

form a council of administration, with the following functions: To lay out new lines of work, inaugurate new enterprises in general, and to prepare the annual budget; and to act as the judicial body of the General Faculty on cases of general discipline not under the authority of the colleges, on new courses of study and changes in existing courses, bringing these matters before the Board of Control, and on questions of college action referred to it by any member of the General Faculty.

FACULTIES.—The General Faculty includes all persons, except laboratory and undergraduate assistants, engaged in the work of instruction in the University. Under the leadership of the President, it forms the governing body in all general matters of instruction and discipline.

The Faculty of a college consists of those members of the General Faculty who give instruction in it. Under the leadership of its Dean, it forms the governing body in matters of instruction and discipline in its college.

REGULATIONS

SUPERVISION.—An *Officer in Charge,* occupying quarters in one of the dormitories, has immediate supervision of the general life of the student-body.

OFFENSES AGAINST GOOD CONDUCT.—Any offense against good conduct, in the ordinary meaning of the word, renders a student liable to discipline, whether or not a formal rule against the offense has been published.

The following offenses will be treated with special severity: Disrespect to an officer of the University; wanton destruction of property; gambling; having revolvers in possession on the University grounds.

HAZING.—No student will be assigned to a room in a dormitory until he has been matriculated and has signed the following pledge:

"I hereby promise upon my word of honor, without any mental reservation whatsoever, to refrain from all forms of hazing while I am connected with the University of Florida."

ATTENDANCE UPON UNIVERSITY DUTIES.—A student who accumulates three unexcused absences from drill, or ten from lecture or recitation, will be given a severe reprimand and parent or guardian will be notified. Two additional unex-

cused absences will cause his dismissal from the University for the remainder of the academic year. Ten unexcused absences from Chapel will involve, except in the case of a Senior or of a student in the College of Law, the same penalty.

A student who, because of ill health or of outside demands upon his time, finds it impossible to be regular in his attendance upon University duties, is requested to withdraw; but this does not in any way reflect upon his good standing.

Delinquencies in University duties are reported to the Registrar, who brings them to the attention of the students concerned and requires a prompt explanation to be made. A careful record of all delinquencies is kept.

INTELLIGENCE TEST.—All Freshmen are required to take an intelligence test early in the first semester.

STUDIES

ASSIGNMENT TO CLASSES.—Every student must appear before the Dean of his college at the beginning of each academic year for assignment to classes. No instructor has, except as authorized by the Dean of his college, authority to enroll a student in any course.

CHOICE OF STUDIES.—The choice, subject to considerations of proper preparation, as to which one of the various curricula is to be pursued rests with the individual student; but the group of studies selected must be that belonging to one of the regular years in the chosen curriculum exactly as announced in the catalog for the year in which the student entered—unless special reasons exist for deviating from this arrangement.

No applicant for a Bachelor's degree shall be allowed to make a change in the curriculum selected, unless such change be submitted to the faculty of his college at its first meeting in the semester in which the change is desired and be approved by a two-thirds vote of those present.

CONDITIONS.—A student prepared to take up most of the studies of a certain year in a regular curriculum, but deficient in some, will be permitted to proceed with the work of that year subject to the *condition* that he make up the deficiency. Provision for all of the lower studies must be made before any of the higher may be taken. In the event of conflicts in

the schedule or of excessive quantity of work, higher studies must give way to lower.

QUANTITY OF WORK.—Minimum and maximum numbers of recitation hours (or equivalent time in laboratory courses) per week are prescribed in each college, according to the following table:

College	*Freshman-Sophomore*		*Junior-Senior*	
	Minimum	Maximum	Minimum	Maximum
Arts and Sciences	17	21	15	19
Agriculture	18	25	16	23
Engineering	18	23	16	21
Law	15	18	15	18
Teachers	17	21	15	19

In all of the above colleges except Law the basic training course of the Reserve Officers' Training Corps, amounting to two credit hours in the Freshman and Sophomore years, is included.

Two hours of laboratory work are considered equivalent to one hour of recitation.

CHANGES IN STUDIES.—A student once registered is not pemitted to discontinue a class or to begin an additional one without written permission from the Dean of his college, which must be shown to the instructor involved; and if he is undergoing military training he will not be permitted to discontinue that work on account of transferring, within a particular year, to a college in which military instruction is not compulsory. A student who has been registered for two weeks will not be permitted to make any change in studies, except during the first two days of the second semester, without the payment of a fee of two dollars ($2.00).

GRADES AND REPORTS.—Each instructor keeps a record of the quality of work done in his classes and monthly assigns each student a grade, on the scale of 100. This grade is reported to the Registrar for permanent record and for entry upon a monthly report to the student's parent or guardian.

If the monthly grades of a student are unsatisfactory, he may be required to drop some of his studies and substitute those of a lower class, or he may be required to withdraw from the University.

EXAMINATIONS.—Examinations on the ground covered are held at the end of each semester.

FAILURE IN STUDIES.—A final grade, based upon the examination and the monthly grades, is assigned for each

semester's work. If this grade falls below 75, the student is considered to have failed and may proceed only subject to a condition in the study in which failure has occurred.

A student failing for the first semester in more than fifty per cent of his class hours will be suspended for the remainder of the college year, but may, under peculiar or unusual circumstances, be reinstated by a vote of the faculty of his college.

RE-EXAMINATIONS.—A student who has failed in the work of a semester is allowed, in case his grade does not fall below 60, to remove the condition by re-examination, on the first Saturday of March or of October. Only one re-examination in any subject is permitted; in case of failure to pass this, with a grade of 85, the student must repeat the semester's work in that subject.

DEGREES.—The special requirements for the various degrees offered by the University will be found under the General Statement of the Graduate School and of each of the five colleges. The following regulations apply to all colleges:

While pursuing studies leading to a degree a student must be registered in the college offering that degree.

Two degrees of the same rank, as, e.g., B.S.C.E. and B.S.E.E., will not be conferred upon the same individual, unless the second degree represents at least fifteen "year" hours of additional work.

SPECIAL STUDENTS.—Students desiring to take special courses will be allowed to take those classes for which they may be prepared. The number of such students in a college is, however, restricted to not more than twenty-five per cent of its enrolment. These students are subject to all the laws and regulations of the University. Special courses do not lead to a degree.

The University permits special courses to be taken solely in order to provide for the occasional exceptional requirements of individual students. Abuse of this privilege, for the sake of avoiding studies that may be distasteful, cannot be tolerated. Accordingly, no minor is permitted to enter as a special student except upon written request of his parent or guardian. Minor special students must, except as provided for in the College of Agriculture, offer fifteen entrance units.

ADULT SPECIALS.—Persons twenty-one or more years of age who cannot satisfy the entrance requirements, but who

give evidence of ability to profit by the courses they may take, may, under exceptional circumstances, be admitted as "Adult Specials". Such students appear before the Committee on Admission for enrolment and are not excused from military duty; altho, if more than twenty-three years of age, they may, under certain conditions, secure exemption. (See page 163.)

CLASSIFICATION OF IRREGULAR STUDENTS.—A student is deemed to belong to that class in which the majority of his hours of work lies. But a special student is not considered as belonging to any of the regular classes.

When special students make up their deficiencies they may become regular students and candidates for a degree.

ATHLETIC TEAMS, MUSICAL AND OTHER CLUBS

ABSENCES ON ACCOUNT OF ATHLETICS, ETC.—The members of regular athletic teams, of musical and of other student organizations, together with necessary substitutes and managers, are permitted to be absent from their University duties for such time, not to exceed nine days per semester, as may be necessary to take part in games, concerts, etc., away from Gainesville. All classwork missed on account of such trips must be made up, as promptly as possible, at such hours as may be arranged by the professors concerned. All drills missed, which so reduce the semester total that it averages less than three hours per week, must be made up before semester credits can be given.

SCHEDULES.—Schedules of games, concerts, etc., must be arranged so as to interfere as little as possible with University duties. Schedules of games must receive the approval of the Committee on Athletics; schedules of concerts, of dramatic entertainments, etc., the approval of the Committee on Student Organizations.

All regular games will be played under the rules of the Southern Intercollegiate Athletic Association.

ELIGIBILITY TO ATHLETIC TEAMS, MUSICAL CLUBS, ETC.—Any team or club representing the University must be composed exclusively of students in good standing, altho the Committee on Student Organizations has the power to waive this regulation in the case of dramatic and musical organizations. Negligence of duties, or failure in studies, excludes a student from membership in all such organizations.

No minor student is permitted to play on any regular athletic team, if his parent or guardian objects. A list of players and substitutes must be submitted to the Committee on Athletics before each game and must receive its approval.

FINANCES.—The general Faculty has made the following rules:

All student organizations desiring to collect funds for any purpose whatsoever on the campus must, unless such organizations be under other Faculty control, first secure written permission from the Committee on Student Organizations.

No profits are to be taken by the officers of any student organization that makes its appeal for funds on the basis of its being a University enterprise.

At least once a year student organizations engaging in financial operations must have their accounts audited by the Committee on Student Organizations and must publish in the *Alligator* a statement of their receipts and expenditures.

HONORS

PHI KAPPA PHI.—A chapter of the Honor Society of Phi Kappa Phi was established at the University during the spring of 1912. To be eligible for membership a student must have been in attendance at the University for at least one year, have been guilty of no serious breaches of discipline, have had at least three years of collegiate training, be within one year of finishing a course leading to a degree, and stand among the first fourth of the Senior class of the University. The numerical grade which must be attained is based on all college work, wherever done, for which the student receives credit towards a degree.

MEDALS.—Medals are offered (1) to the best declaimer in the Freshman and Sophomore classes and for the best original orations delivered (2) by a member of the Junior, and (3) by a member of the Senior class. The contests are settled in public competition at Commencement. The speakers are limited to four from each class and are selected by the Faculty.

EXPENSES

UNIVERSITY CHARGES.—*Tuition.*—A tuition fee of forty dollars ($40.00) per year is charged every student registered in the College of Law. In the other colleges a student whose legal residence is in Florida is subject to no charge for tuition; a student who is not a legal resident of the State is required to pay a tuition fee of forty dollars ($40.00) per year.

Registration Fee.—This fee of ten dollars ($10.00) per

year is charged all students, except one scholarship student from each county in Florida and all graduate students pursuing work leading to a degree higher than that of Bachelor. These two classes of students are charged five dollars ($5.00).

The scholarships referred to are to be obtained from County Superintendents of Public Instruction and must be filed with the auditor on the day of registration.

An additional fee of two dollars ($2.00) is required of students who enter after the day scheduled for registration.

Student Activity Fee.—This fee of fifteen dollars ($15.00), payable on entrance, was voted by the students and approved by the Board of Control. The moneys so derived are used to foster and maintain athletic sports, student publications, literary and debating societies, and other student activities.

Breakage and Laboratory Fee.—In order to secure the University against damage, and to pay for materials used by students in laboratory courses, the sum of five dollars ($5.00) is charged. No part of this fee will be refunded to students taking laboratory courses. Damage done by individuals and not reported usually consumes all the moneys provided by this fee for covering general breakage.

Damage known to have been done by any student will be charged to his individual account.

Infirmary Fee.—All students are charged an infirmary fee of three dollars ($3.00). This secures for the student, in case of illness, the privilege of a bed in the infirmary and the services of the resident physician and nurse. It also provides for a semi-annual physical examination.

Diploma Fee.— A diploma fee of ten dollars ($10.00), payable on or before April 1st of the year of graduation, is charged all candidates for degrees.

Board and Lodging.—Board, lodging, and janitor service will be furnished by the University at a cost of ninety dollars ($90.00) per semester (not including the Christmas vacation). To get advantage of this rate, payment must be made at the beginning of each semester. No refund will be made for less than a month's absence. When not engaged by the semester, board and lodging will be furnished at twenty-four dollars ($24.00) per month.

Under *Board and Lodging* are included meals in the com-

mons and room (with heat, light, janitor service, and access to a bathroom), furnished as stated below. The doors of the rooms are provided with Yale locks. A deposit of 50 cents is required for each key, which will be returned when the key is surrendered. *Janitor service* includes the care of rooms by maids, under the supervision of a competent housekeeper.

Board and lodging in private homes may be secured at the rate of thirty-five to forty dollars ($35.00-$40.00) per month.

Board without Lodging.—Board without lodging will be furnished at the rate of $20.00 per calendar month, payable in advance. No part of this sum will be refunded.

Lodging without Board.—Lodging without board is not furnished.

Furniture.—All rooms are partly furnished and adjoin bathrooms equipt with marble basin and shower with both hot and cold water. The furniture consists of two iron bedsteads and mattresses, chiffonier or bureau, table, washstand, and chairs. The students are required to provide pillows, bedding, towels and toilet articles for their own use.

Books.—The cost of books depends largely upon the course taken, but is, in no case, a large item of expense, tho in the higher classes the student is encouraged to acquire a few works of permanent value. The average cost of books to academic students is between $12.00 and $15.00 per annum; to law students, $35.00 to $40.00.

Summary.—The following table summarizes the minimum expenses of a Florida student registered in any college save in that of Law:

Tuition	$000.00
Registration Fee	10.00
Breakage and Laboratory Fee	5.00
Student Activity Fee	15.00
Infirmary Fee	3.00
Board and Lodging	180.00
Books (about)	13.50
Laundry (about)	18.00
	$244.50

Students from other states will add a tuition fee of $40.00; those enrolled in the R. O. T. C. will see also page 161. Candidates for degrees will add a diploma fee of $10.00.

A student enrolled in the Military Department will be required to furnish a surety bond, executed by parent or guar-

dian, in the amount of $75.00, to protect the University against loss from failure on his part to return uniform and equipment.

REMITTANCES.—*All remittances should be made to the Auditor, University of Florida, Gainesville, Fla.*

OPPORTUNITIES FOR EARNING EXPENSES.—It is often possible for a student to earn a part of his expenses by working during hours not required for his University duties.

A few students are employed as waiters, as janitors, and in other capacities. Such employment is not, as a rule, given to a student otherwise financially able to attend the University, nor is it given to one who fails in any study. Application for employment should be made to Dr. J. E. Turlington, Chairman of the Self-Help Committee.

Altho the employment of students is designed to assist those in need of funds, the payment for their services is in no sense a charity. The rate of remuneration is no higher and the standard of service demanded is no lower than would be the case if the work were done by others than students. If a student employee fails to give satisfaction, he is discharged. Otherwise, provided it is not found to interfere with reasonable success in his studies and provided he does not commit any breach of good conduct, he is continued in his position as long as he cares to hold it.

Great credit is due those willing to make the necessary sacrifices, nevertheless students are advised not to undertake to earn money while pursuing their studies, unless such action is unavoidable. Proper attention to studies makes sufficient demand upon the time and energy of a student, without the burden of outside duties; such time as the studies leave free can be spent more profitably in recreation.

FELLOWSHIPS, SCHOLARSHIPS, AND LOAN FUNDS

FELLOWSHIPS.—In order to encourage young teachers to prepare themselves further for their work, three Teaching Fellowships, each paying $200.00 annually, have been established.

Application for a fellowship must be made in writing to the Dean of the Teachers College or to the President of the University. It must show that the applicant is a college graduate and has ability to profit by the work offered, and must be accompanied by testimonials as to his character.

A Fellow must devote himself to studies leading to the Master's degree in Education. He will be expected to teach four or five hours per week in the Practice High School, under the direction and supervision of the Teachers College, for which he will receive two hours' credit. He may be called upon for minor services, such as conducting examinations, but not for anything that would interfere with his graduate work.

SCHOLARSHIPS.—Thru the generosity of friends, the University is able to offer eight scholarships. (See also College of Agriculture.) Application for a scholarship should be made to the President of the University and should be accompanied by a record of the student's work, statement of his need, and testimonials as to his character. To secure a scholarship:

(a) The student must actually need this financial help to enable him to attend the University.

(b) He must be of good character and habits and sufficiently far advanced to enter not lower than the Freshman class.

1. *United Daughters of the Confederacy Scholarship.*—Established and maintained by the U. D. C. of the State at large. For the grandson of a Confederate soldier. Value $180.00.

2. *Kirby Smith Chapter, U. D. C., Scholarship.*—Established and maintained by the Kirby Smith Chapter, U. D. C., of Gainesville. For the lineal descendant of a Confederate veteran. Value $90.00.

3. *Jacksonville Chapter, U. D. C., Scholarship.*—Established and maintained by the Jacksonville Chapter, U. D. C. For the lineal descendant of a Confederate veteran. Value $180.00.

4. *Tampa Chapter, U. D. C., Scholarship.*—Established and maintained by the Tampa Chapter, U. D. C. For the lineal descendant of a Confederate veteran. Value $180.00.

5. *Katherine Livingstone Chapter, D. A. R., Scholarship.*—Established and maintained by the Katherine Livingstone Chapter, D. A. R., of Jacksonville. Value $250.00.

6. *Knight and Wall Scholarship.**—Established and maintained by the Knight and Wall Company, hardware dealers, of Tampa. Value $245.00.

7. *Arthur Ellis Ham Memorial Scholarship.*—See page 17.

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*For particulars, address the Superintendent of Public Instruction, Hillsboro County, Tampa, Fla.

8. *Willoughby Memorial Scholarship.*— Established and maintained by Professor and Mrs. C. H. Willoughby in memory of their son, Paul Willoughby, who died while a member of the S. A. T. C. Value $125.00.

LOAN FUNDS.—The generosity of friends enables the University to lend a few needy students money with which to help defray their expenses. A joint note is to be made by a recipient of a loan and one responsible property holder owning property to a value of not less than $1,000 over and above the exemption privilege. Interest on such loans is at the rate of 7% and is payable yearly, but does not begin until the first of July after graduation, or until one month after a non-graduating recipient has severed his connection with the University. The principal is to be repaid in annual instalments of $100 each, due at the time of interest payments.

William Wilson Finley Foundation.—See under College of Agriculture.

State U. D. C. Foundation.—Loan to a lineal descendant of a Confederate soldier to an amount not exceeding $100 per year.

ALUMNI ASSOCIATION

At the close of their Commencement exercises the class of 1906 organized an Alumni Association. All graduates of the University *and the graduates of the former institutions who have had their diplomas confirmed by the University* are eligible for membership.

Further information concerning the Association may be obtained from any one of the officers: President, Ralph Stoutamire, of Gainesville; Vice-President, Paul D. Camp, of White Springs; Secretary and Treasurer, F. M. O'Byrne, of Gainesville.

STUDENT ORGANIZATIONS AND PUBLICATIONS

ORGANIZATIONS.—Practically every interest of the student-body has a student-controlled organization, but with faculty supervision, for its support. Some of these organizations are mainly religious in character, some social, others purely literary or scientific, still others combine social with other features. Hence there are athletic clubs, in addition to the general Athletic Association of the University; associations of men who

have distinguished themselves or who are greatly interested in some activity or study, as, e. g., a Military Club, a Monogram Club, a Chemical Club, honor societies in Agriculture, in Law, etc.; and a Rehabilitation Club. Among those worthy of special mention are the following:

Y. M. C. A.—The Y. M. C. A., under the leadership of the General Secretary, seeks to promote the ideal of the University, that every man should have a strong body, a trained mind, and a Christian experience in order that he may go forth prepared to meet the problems of life.

Clean, wholesome athletics is fostered, efficiency in the classroom urged, and systematic Bible study promoted. The best available ministers and laymen are brought before the students to the end that the latter may become acquainted with the problems of today.

The Y. M. C. A., in carrying forward this work, deserves the support of every student, alumnus, and parent.

Honor Committee.—In order to carry out the spirit of the "Honor System," which has been in operation at the University for years, each class elects one of its members to represent it on the Student Honor Committee. This committee strives in every way possible to promote among the students honesty in all their work and conducts a fair trial in the rare cases of breaches of the system. Its verdict is final, but is kept secret from all save those concerned.

Literary and Scientific Societies.—See General Statement of each of the five colleges of the University.

Debating Council.—The Debating Council, composed of one representative from each of the Literary Societies, has general charge both of intersociety and of intercollegiate debates. Under its direction a debating contest is held annually between members of each of the five colleges of the University. The winning team gains possession of the Farr Loving Cup for the ensuing year; three successive victories entitle the society furnishing the debaters to permanent ownership.

Teams representing the University debate annually against teams from the University of South Carolina and the University of Tennessee. In 1920 and 1921 debates were held with the Louisiana State University.

Cosmopolitan Club.—The students of foreign nationality, together with a few Americans, organized in 1918 a club for

the purpose of promoting international understanding and friendship. Under its auspices addresses are frequently made, describing customs and institutions of foreign countries. The membership consists at the present time of men from Brazil, British Africa, Ecuador, Italy, Panama, the Philippines, Russia, Serbia, and the United States.

Orchestra.—The orchestra plays for Chapel exercises and furnishes special music on Fridays. It also accompanies the University Minstrels on its annual tour.

Glee and Mandolin and Guitar Clubs.—The Glee Club develops ability in part-singing and gives much pleasure by adding variety to the Friday morning exercises. The Mandolin and Guitar Club, while complete in itself, joins the Glee Club in its annual tour.

Military Band.—The Military Band adds much to the effectiveness of parades. It makes several excursions during the year to neighboring towns, and has an annual trip of nearly a week with the University Minstrels.

PUBLICATIONS.—Beginning with the session of 1909-10 each Junior (or Senior) class has published an illustrated annual, known as the *"Seminole"*.

The *"Florida Alligator"* is a weekly newspaper owned and controlled by the student-body. Its editorial articles discuss University problems from the viewpoint of the undergraduates. It seeks the support of the alumni, who find in it the best means of keeping in touch with the University.

ADMISSION

TERMS.—A candidate for admission must present, along with his scholastic record, a certificate of good moral character. If he be from another college or university, this certificate must show that he was honorably discharged.

No candidate of less than 16 (18 in the College of Law) years of age will be admitted.

METHODS.—There are two methods of gaining admission:

(1) *By Certificate.*—The University will accept certificates from the approved Senior high schools and from accredited academies and preparatory schools of Florida, and from any secondary school elsewhere which is accredited by its state university.

The certificate must be officially signed by the principal of

the school attended. It must state in detail the work of preparation and, in the case of Florida high schools, that the course *thru the twelfth grade* has been satisfactorily completed.

Blank certificates, conveniently arranged for the desired data, will be sent to all high-school principals and, upon application, to prospective students.

(2) *By Examination.*—Candidates not admitted by certificate will be required to stand written examinations upon the entrance subjects. For dates of these examinations, see University Calendar, page 3.

REQUIREMENTS. — "*Entrance Units.*" — The requirements for admission are measured in "Entrance Units," based upon the curriculum of the high schools of Florida. A unit represents a course of study pursued thruout the school year with five recitation periods (two laboratory periods being counted as one recitation period) of at least forty-five minutes each per week, four courses being taken during each of the four years. Thus the curriculum of the standard Senior high school of Florida is equivalent to sixteen units.

Number of Units.—Admission to the Freshman class will be granted to candidates who present evidence of having completed courses amounting to sixteen such units.

These requirements are equal to fifteen Carnegie Foundation or National Educational Association units.

In no case will credit for more than sixteen units be given for work done at a high school.

Deficiency.—A deficiency of one unit will be allowed, but must be removed by the end of the first year after admission. For admission to the College of Engineering such deficiency must be in an elective, and not in a required subject.

Students who have registered for a University study will not be allowed to make up an entrance condition by examination in this subject, unless the examination be taken on the first Saturday in October of the same school year. The University credit may, however, be used as a substitute for entrance credit, a three-hour course continued thruout the year counting as one unit.

Distribution of Units.—Seven and a half specified units are required in common by all the colleges of the University; other

specified units are given below; the remaining units are elective.

UNIVERSITY

English	3	units
History	1	unit
Mathematics	2½	units
Science	1	unit

COLLEGE OF ARTS AND SCIENCES
COLLEGE OF AGRICULTURE*
TEACHERS COLLEGE

A. B. Curriculum

Latin	2	units

B. S. Curriculum

One Foreign Language or History and Science	2	units

COLLEGE OF ENGINEERING

Mathematics	1½	units
Physics	1	unit

ELECTIVE UNITS.—Elective units are to be chosen from among the subjects regularly taught in a standard high school, altho not more than four will be accepted in vocational subjects—agriculture, mechanic arts, stenography, typewriting, etc. Under exceptional circumstances practical experience in engineering work may be accepted by the College of Engineering in lieu of not more than four elective units.

DESCRIPTION OF UNIT COURSES

The minimum requirements for the specified units, and for the elective units most frequently offered, are as follows:

BOTANY.—One-half or one unit.—Anatomy and morphology; physiology; ecology; natural history and classification of the plant groups. At least twice as much time should be given by the student to laboratory work as to recitation.

CHEMISTRY (PHYSICS).—One unit.—Study of a standard high-school text; lecture-table demonstrations; individual laboratory work, comprising at least thirty exercises from a recognized manual.

ENGINEERING PRACTICE.—Four units.—Regular commer-

*A. B. Curriculum not offered in College of Agriculture.

cial work for pay in engineering, or in related subjects, may be recognized for entrance credit at the discretion of the faculty of the College of Engineering. The candidate must submit a written statement from his employer, giving the nature and quality of the work done and the date of beginning and of ending. For each unit allowed twelve months of work will be required.

ENGLISH.—Four units.—The exercises in Composition and the use of the Classics should be continued thruout the whole period of preparation. No candidate will be accepted whose work is notably defective in spelling, punctuation, division into paragraphs, or idiom.

(1) *Grammar.*—English Grammar, both in its technical aspects and in its bearings upon speech and writing.

(2) *Composition and Rhetoric.*—The fundamental principles of Rhetoric as given in any standard high-school text; practice in Composition, oral and written.

(3) *Classics.*—The English Classics generally adopted by schools and colleges. The work includes:

I. *Study and Practice.*—Thoro study of the subject-matter, form, and structure of the works selected. A knowledge of the leading facts in the periods of English history to which the prescribed texts belong is presupposed.

TEXTS:—One book from each of the following groups:

A. Shakespeare.—Julius Caesar. Macbeth. Hamlet.

B. Milton: L'Allegro, Il Penseroso, and either Comus or Lycidas. Tennyson: The Coming of Arthur, The Passing of Arthur, and The Holy Grail. Selections from Wordsworth, Keats, and Shelley, in Book IV of Palgrave's Golden Treasury (First Series).

C. Burke: Speech on Conciliation with the Colonies. Macaulay: Speech on Copyright; and Lincoln: Cooper Union Address. Washington: Farewell Address; and Webster: Bunker Hill Oration.

D. Carlyle: Essay on Burns; and Selections from Burns' Poems. Macaulay: Life of Johnson. Emerson: Essay on Manners.

II. *Reading.*—A general knowledge (a) of the substance of the books selected and (b) of the lives of the authors. The examination is also a test of the candidate's power of clear and accurate expression.

TEXTS:—At least two books from each of the following groups, except as otherwise provided under group A:

A. The Old Testament (comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther). The Odyssey (with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII). The Iliad (with the omission, if desired, of Books XI, XII, XIV, XV, XVII, XXI.) The Aeneid.

For any selection from group A one from any other group may be substituted. The Odyssey, Iliad, and Aeneid should be read in English translations of recognized literary merit.

B. Shakespeare.—A Midsummer Night's Dream. The Merchant of Venice. As You Like It. Twelfth Night. The Tempest. Romeo and Juliet. King John. Richard the Second. Richard the Third. Henry the Fifth. Coriolanus. *Julius Caesar. *Macbeth. *Hamlet.

C. Malory: Morte d'Arthur (about 100 pages). Bunyan: Pilgrim's Progress, Part I. Swift: Gulliver's Voyages to Lilliput and to Brobdingnag. Defoe: Robinson Crusoe, Part I. Goldsmith: Vicar of Wakefield. Scott: Any novel. Jane Austen: Any novel. Maria Edgeworth: Castle Rackrent, or The Absentee. Francis Burney (Madame d'Arblay): Evelina. Dickens: Any novel. Thackeray: Any novel. George Eliot: Any novel. Mrs. Gaskell: Cranford. Kingsley: Westward Ho! or Hereward the Wake. Reade: The Cloister and the Hearth. Blackmore: Lorna Doone. Hughes: Tom Brown's School Days. Stevenson: Any novel out of copyright. Cooper: Any novel. Poe: Selected Tales. Hawthorne: Any novel out of copyright.

D. Addison and Steele: The Sir Roger de Coverly Papers; or Selections from The Tattler and The Spectator. Boswell: Selections from the Life of Johnson (about 200 pages). Franklin: Autobiography. Irving: Selections from The Sketch Book (about 200 pages); or the Life of Goldsmith. Southey: Life of Nelson. Lamb: Selections from the Essays of Elia (about 100 pages). Lockhart: Selections from the Life of Scott (about 200 pages). Thackeray: Lectures on Swift, Addison, and Steele in The English Humorists. Macaulay: One of the following essays: Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederic the Great, Madame d'Arblay. Trevelyan: Selections from Life of Macaulay (about 200 pages). Ruskin: Sesame and Lilies; or Selections (about 150 pages). Dana: Two Years Before the Mast. Lincoln: Selections. Parkman: The Oregon Trail. Thoreau: Walden. Lowell: Selected Essays (about 150 pages). Holmes: The Autocrat of the Breakfast Table. Stevenson: Inland Voyage, and Travels with a Donkey. Huxley: Autobiography and Selections from Lay Sermons (including the addresses on Improving National Knowledge, A Liberal Education, and a Piece of Chalk).

E. Palgrave: Golden Treasury (First Series), Books II and III, with special attention to Dryden, Gray, Cowper, Burns, and Collins; Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study). Goldsmith: The Traveller, and The Deserted Village. Pope: The Rape of the Lock. A Collection of English and Scottish Ballads (as, for example, Robin Hood Ballads, The Battle of Otterburne, King Estmere, Young Beichan, Bewich and Grahame, Sir Patrick Spens, and a selection from later ballads). Coleridge: The Ancient Mariner, Christabel, and Kubla Khan. Byron: Childe Harold, Canto III or IV; and The Prisoner of Chillon. Scott: The Lady of the Lake or Marmion. Macaulay: The Lays of Ancient Rome; The Battle of Naseby; The Armada; Ivry. Tennyson: The Princess; or Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur. Browning: Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, "De Gustibus", The Pied Piper, Instans Tyrannus. Arnold: Sohrab and Rustum, and The Forsaken Merman. Selections from American Poetry, with special attention to Poe, Lowell, Longfellow, and Whittier.

(4) *History of American Literature; History of English*

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*If not chosen for study.

Literature.—One unit.—Supposed to represent the work of the fourth year in English in the high school.

HISTORY.—Four units.

(1)	Ancient History, with particular reference to Greece and to Rome	1 unit
(2)	European History since Charlemagne	1 unit
(3)	English History	1 unit
(4)	American History	1 unit

A year's work based on a textbook of at least 300 pages is required for each unit. The student should know something of the author of the textbook used and give evidence of having consulted some works of reference.

LATIN.—Four units.—The minimum work required is:

(1) First Year.—One unit.—Completion of Collar & Daniell's First Year Latin, Potter's Elementary Latin Course, or other good first-year book.

(2) Second Year.—One unit.—Four books of Caesar's Gallic War; grammar and prose composition thruout the year.

(3) Third Year.—One unit.—Six of Cicero's Orations; grammar and prose composition thruout the year.

(4) Fourth year.—One unit.—The first six books of the Aeneid and as much prosody as relates to accent, versification in general, and to dactylic hexameter.

MATHEMATICS.—Four units.

(1) *Algebra.* — First Year. — One unit. — Elementary operations: factoring, highest common factor, least common multiple, fractions, simple equations, inequalities, involution, evolution, and numerical quadratics.

(2) *Algebra.* — Second Year. — One unit.* — Quadratic equations, ratio and proportion, the progressions, imaginary quantities, the binomial theorem, logarithms, and graphic algebra.

(3) *Plane Geometry.*—One unit.

(4) *Solid Geometry.*—One-half unit.

(5) *Plane Trignometry.*—One-half unit.

MODERN LANGUAGES.—Two units.—If the student offers only one unit, he must study the language a second year in the University.

French (Spanish).— First Year.— One unit.— Pronunciation; grammar; from 100 to 175 pages of graduated texts,

*This represents only one half-unit of the Carnegie-unit scale.

with practice in translating into the foreign language variations of sentences read; dictation; memorizing of short selections.

Second Year.—From 250 to 400 pages of easy prose; translation into the foreign language of variations upon the texts read; abstracts; grammar; exercises; memorizing of short poems.

PHYSICAL GEOGRAPHY.—One unit.—Study of a standard high-school text, together with laboratory and field course.

PHYSICS.—Requirements similar to those for chemistry, which see.

ZOOLOGY.— One-half or one unit.— Study of a standard high-school text and dissection of at least ten specimens. Notebooks with drawings, showing the character of the work completed, must be presented on entrance to the University.

ADVANCED STANDING

Advanced standing will be granted only upon recommendation of the heads of the departments concerned. Fitness for advanced work may be determined by examination or by trial. Students from other institutions of like standing will ordinarily be classified according to the ground already covered.

ORGANIZATION

I. THE GRADUATE SCHOOL.

II. THE COLLEGE OF ARTS AND SCIENCES:

(a) A Curriculum leading to the A. B. degree.
(b) A Curriculum leading to the B. S. degree.
(c) A Pre-Medical Course.

III. THE COLLEGE OF ENGINEERING:

Instructional Division:

(a) A Curriculum leading to the B. S. degree in Agriculture.
(b) A Curriculum leading to the title Graduate in Farming.
(c) A Two-Year Course.
(d) A One-Year Course.
(e) A Four-Months' Course.

Experiment Station Division.
Extension Division.

IV. THE COLLEGE OF ENGINEERING:

(a) A Curriculum leading to the B. S. degree in Civil Engineering.
(b) A Curriculum leading to the B. S. degree in Electrical Engineering.
(c) A Curriculum leading to the B. S. degree in Mechanical Engineering.
(d) A Curriculum leading to the B. S. degree in Chemical Engineering.

V. THE COLLEGE OF LAW:

A Curriculum leading to the LL.B. or .. D. degree.

VI. THE TEACHERS COLLEGE AND NORMAL SCHOOL:

(a) A Curriculum leading to the A. B. degree in Education.
(b) A Curriculum leading to the B. S. degree in Education.
(c) A Normal Course leading to a Diploma.
(d) Correspondence School.
(e) The University Summer School.

General (Connected with at least four Colleges):

Division of Military Instruction.
Division of Rehabilitation.
Division of Hygiene (In Cooperation with the Federal Inter-Departmental Hygiene Board).

VII. EXTENSION SERVICE.

GRADUATE SCHOOL

ORGANIZATION.—This School is under the direction of the Committee on Graduate Studies, which consists of Professors Anderson, Benton, Farr, Newell, Norman, and Trusler.

Graduate students should register with the Chairman of this Committee.

DEGREES OFFERED.—Courses are offered leading to the degrees of Master of Arts, Master of Arts in Education, Master of Science, Master of Science in Agriculture, and Master of Science in Education.

PREREQUISITE DEGREE.—Candidates for the Master's degree must possess the Bachelor's degree of this institution or of one of like standing.

APPLICATIONS.—Candidates for the Master's degree must present to the Chairman of the Committee on Graduate Studies a written application for the degree not later than the first of November of the scholastic year in which the degree is desired. This application must name the major and minor subjects offered for the degree and must contain the signed approval of the heads of the departments concerned.

When a candidate offers as a part of his work any course not sufficiently described in the catalog, he must include in his application an outline or description of that course.

TIME REQUIRED.—The student must spend at least one entire academic year in residence at the University as a graduate student, devoting his full time to the pursuit of his studies.

WORK REQUIRED.—The work is twelve hours per week. Six hours of this work must be in one subject (the major) and of a higher grade than any course offered for undergraduate students in that subject. The other six hours (the minor or minors) are to be determined and distributed by the professor in charge of the department in which the major subject is selected. No course designed primarily for students of a lower grade than the Junior class will be acceptable as a minor. While the major course is six hours, these hours are not the same as undergraduate work, for in general the major work will require at least two-thirds of the student's time.

To obtain credit for a minor the student must attain a grade of not less than eighty-five per cent.

DISSERTATION.—It is customary to require a dissertation showing original research and independent thinking on some subject accepted by the professor under whom the major work is taken, but this requirement may be waived at the option of the professor, subject to the approval of the Committee on Graduate Studies. If the requirement be not waived, the dissertation must be in the hands of the committee not later than two weeks before Commencement Day.

SUMMER SCHOOL.—Four complete summer terms devoted entirely to graduate work will satisfy the time requirement.

The application must be presented by the middle of the first term.

COLLEGE OF ARTS AND SCIENCES

JAS. N. ANDERSON, *Dean*

FACULTY.—Jas. N. Anderson, E. C. Beck, J. R. Benton, A. P. Black, L. M. Bristol, L. W. Buchholz, M. D. Cody, C. L. Crow, H. S. Davis, J. M. Farr, J. M. Leake, T. R. Leigh, P. H. Lucas, W. S. Perry, T. M. Simpson.

GENERAL STATEMENT

AIM AND SCOPE.—The tendency of universities at the present time seems to be to reach out their arms farther and farther into the domain of knowledge and to become more and more places where the student may expect to be able to acquire any form of useful knowledge in which he may be interested. In the center, however, there is still found the College of Arts and Sciences, the pulsating heart, as it were, sending its vivifying streams to the outermost tips of the institution.

The aim of the college is to prepare for life, it is true, but not so directly and immediately as do the professional schools. It is a longer, but a better road, for those who are able to travel it, to distinction and ultimate success in almost any calling. Especially in the case of the learned professions, it is becoming clearer that a man must first get a liberal education, if possible, before entering upon his professional studies.

The purpose and aim of the College of Arts and Sciences is to impart culture and refinement, to train the mind and strengthen the intellect, to build up ideals and establish the character, to enlarge the vision, to ennoble the thoughts, to increase the appreciation of the beautiful and the true, to add charm to life and piquancy to companionship, to make the man a decent fellow, a useful citizen, an influential member of society in whatever community he may be thrown, in whatever field his life-course may be run.

But if the student wishes to examine the practical side exclusively, he will find that there is also something practical in all these courses. For instance, they are all valuable for him who wishes to learn to teach those subjects. Moreover, the use of electives gives the student an opportunity to specialize in some branch according to his inclination and in furtherance of his plans.

ADMISSION.—For full description of requirements for admission and of unit courses, see pages 42 to 48, inclusive.

LITERARY SOCIETIES.—The Literary Societies are valuable adjuncts to the educational work of the College. They are conducted entirely by the students and maintain a high level of endeavor. The members obtain much practical experience in the conduct of public assemblies. They assimilate knowledge of parliamentary law, acquire ease and grace of delivery, learn to argue with coolness of thought and courtesy of manner, and are trained in thinking and in presenting their thoughts clearly and effectively while facing an audience. All students are earnestly advised to connect themselves with one of these societies and to take a constant and active part in its work.

DEGREES.—The College of Arts and Sciences offers courses leading to the degrees of Bachelor of Arts (A.B.) and Bachelor of Science (B.S.).

SUBJECTS OF STUDY.—The subjects of study leading towards the degrees offered by the College of Arts and Sciences are divided into the following four groups:

I.	II.	III.	IV.
Military Science I and II.	French, Greek, Latin, Rhetoric and English Language (English I), Spanish.	Bible, Economics, Education, English Literature, History, Philosophy, Political Science, Psychology, Sociology.	Agriculture, Astronomy, Bacteriology, Biology, Botany, Chemistry, Drawing, Descriptive Geometry, Geology, Mathematics, Mechanics, Military Science III and IV, Physics, Physiology, Surveying, Zoology.

REQUIREMENTS FOR DEGREES.—For each of the degrees offered, A.B. and B.S., a total of sixty-four hours must be taken, including Military Science I and II, English II and Philosophy I. Of these sixty-four hours at least the last fifteen must be taken in residence at this University.

For the A.B. degree fifteen hours must be taken in each of Groups II and III and twelve hours from Group IV; three hours may be chosen from any group; the remaining seven-

teen hours (including the "major") must be chosen from Groups II, III, and (pure) Mathematics.

For the degree of B.S. twelve hours must be taken from each of Groups II and III, twenty-four (including the "major" and, in every case, Chemistry I) from Group IV, leaving fourteen hours to be chosen from the subjects mentioned above.

The "major" must consist of nine hours in one department (not counting the Freshman work) and must be approved by the head of the department chosen. The choice of electives must meet with the approval of the Dean.

COMBINED ACADEMIC AND LAW COURSE.—Twelve of the seventeen unspecified hours for the A.B. degree or of the fourteen for the B.S. degree may be taken from the first year of the curriculum of the College of Law.

The Bachelor's degree in Arts or Sciences will not be conferred, however, upon a candidate offering twelve hours in Law until he has satisfactorily completed the second year of the course in the College of Law.

MINIMUM AND MAXIMUM HOURS.—The student must take at least fifteen hours' work and in general will not be permitted to take more than nineteen; but if in the preceding semester he has attained an average of eighty-seven or more and has not failed in any subject he may be permitted to take as many as twenty-one hours, and if he has attained an average of ninety with no failures he may be permitted to take as many as twenty-three hours.

PRE-MEDICAL COURSE.—Students intending to study medicine are advised to take the regular B.S. course. Inasmuch, however, as many students are unable to spend four years on a non-professional course, the University offers a Two-Year Pre-Medical Course.

CURRICULUM

Leading to the Degree of Bachelor of Arts

Freshman Year

NAMES OF COURSES	NATURE OF WORK	HOURS PER WEEK
English I	Rhetoric	3
Foreign Language	French, Greek, Latin, or Spanish	3
History I	Modern European History	3
Mathematics I	Plane Analytic Geometry, College Algebra	3
*Military Science I	Regulations	1
†Physics V	General Physics	4
		17

*In addition, 2 credit hours for drill will be granted. †Greek may be substituted, in which case Physics must be taken in the Sophomore year.

Sophomore Year

English II	3
Philosophy I	3
Group II	3
Group II or III	3
Group IV	3
*Military Science II	1
	16

CURRICULUM

Leading to the Degree of Bachelor of Science

Freshman Year

Names of Courses	Nature of Work	Hours per Week
Chemistry I	General Chemistry	5
English I	Rhetoric	3
Foreign Language	French, Greek, Latin, or Spanish	3
Mathematics I	Plane Analytic Geometry, College Algebra	3
*Military Science	Regulations	1
Physics V	General Physics	4
		19

Sophomore Year

English II	3
Philosophy I	3
Group II	3
Group IV	6
*Military Science II	1
	16

In the Junior and Senior years candidates for either of the degrees offered must choose their studies so as to conform to the general "Requirements for Degrees" of this College.

CURRICULUM

TWO-YEAR PRE-MEDICAL COURSE

First Year

Names of Courses	Nature of Work	Hours per Week
Biology I*a* and III*b*	General Course	4
Chemistry I	General Chemistry	5
English I	Rhetoric	3
French A	Elementary Course	3
Physics V	General Physics	4
*Military Science I		1
		20

Second Year

Biology V	3
Biology XI*a*	1½
Chemistry III	2½
Chemistry V	4
French I	3
Elective from Group III	3
*Military Science II	1
	18

*In addition, 2 credit hours for drill will be granted.

DEPARTMENTS OF INSTRUCTION

ANCIENT LANGUAGES

Professor Anderson

The study of the classics contributes largely to general culture. In addition to the recognized and peculiar disciplinary value of such studies and their conspicuous service in cultivating the literary sense and developing literary taste, they have a more immediate value and office as aids to the comprehension and interpretation of modern languages and literatures. A thoro study and a full understanding of the modern languages, especially the Romance languages and our own tongue, demand a considerable preliminary acquaintance with Latin and Greek. Thus from two points of view, that of their own intrinsic beauty and value as culture studies and that of aids to the study of other languages, Latin and Greek command our attention and call for a large place in any curriculum which proposes to issue in a liberal education.

Courses A, B, and C, if not used for entrance units, may be taken for college credit.

LATIN

LATIN A.—First Year Latin, based on a book for beginners. *(3 hours.)*

LATIN B.—Second Year Latin, based on Caesar, with grammar and prose composition. *(3 hours.)*

LATIN C.—Third Year Latin, based on Cicero and Virgil, with grammar and prose composition. *(3 hours.)*

LATIN I.—Ovid, about 2,000 verses selected from his various works, but mainly from the Metamorphoses; Versification, with especial reference to the Dactylic Hexameter and Pentameter; Cicero's De Senectute and De Amicitia. A rapid review of forms and the principal rules of Syntax; a short weekly exercise in prose composition. *(3 hours.)*

LATIN II.—Selections from the Roman historians, especially Livy and Sallust, and from the Satires, Epistles, Odes, and Epodes of Horace, with a study of the Horation Metres. *(3 hours.)*

LATIN III.—Juvenal's Satires, with some omissions; Tacitus, parts of the Histories of Annals; selections from Catullus, Tibullus, Properties, and Ovid. *(3 hours.)*

LATIN IV.—Several plays of Plautus and Terence; Tacitus, Germania and Agricola; selections from Seneca, Gellius, and Quintilian. *(3 hours.)*

LATIN V*b*.—History of Roman Literature, preceded by a short study of Roman Life and Customs. *(Second semester; 3 hours.)*

LATIN VI.—Grammar and Prose Composition: an intermediate course in Prose Composition adapted to the needs of students taking Latin I or II and consisting of weekly written exercises and some oral work; in connection with this there will be a general review of Latin Grammar with some more advanced work, both in forms and syntax. *(2 hours.)*

LATIN VII.—Advanced Prose Composition: a continuation of Latin VI, open only to those students who have completed Latin VI or equivalent. *(2 hours.)*

GREEK

GREEK A.—The forms and most important principles of the syntax; numerous exercises, partly oral, partly written, and some practice in conversation and sight reading. One book of Xenophon's Anabasis, with exercises in Prose Composition and study of the Grammar. *(3 hours.)*

GREEK I.—Xenophon's Anabasis, Books II, III, and IV, selections from Lucian and the easier dialogues of Plato; sight translation; Prose Composition; Grammar. *(3 hours.)*

GREEK II.—Select orations of Lysias or other Attic orators, with informal talks on Athenian Laws and Customs; parts of the Iliad and Odyssey of Homer; Prosody. *(3 hours.)*

GREEK III.—Selections from the Greek historians, especially Herodotus and Thucydides; from the Greek dramatists, especially Euripides and Sophocles; from the lyric fragments of Alcaeus, Sappho, etc. *(3 hours.)*

GREEK IV.—History of Greek Literature, preceded by a short study of Greek Life and Customs. A knowledge of the Greek language is highly desirable, but is not required for this course. *(First semester; 3 hours.)*

GREEK V.—Grammar and Prose Composition: an intermediate course in Prose Composition adapted to the needs of students taking Greek III or IV and consisting of weekly written exercises and some oral work; in connection with this

there will be a general review of Greek Grammar with some more advanced work, both in forms and syntax. *(2 hours.)*

GREEK VI.—Selections from the Septuagint and from the New Testament; class and parallel translations; vocabulary, grammar, and stylistic features stressed. *(3 hours.)*

BIBLICAL INSTRUCTION

Professor Buchholz

The following courses are offered to Juniors and Seniors, embracing such aspects of Biblical study as the University is prepared to give, with a view to providing a major subject in the Bachelor of Arts curriculum that will permit students to begin preparation for work as secretary or physical director of the Y. M. C. A., for welfare work in mills or social settlements, or for the ministry. The courses offered will be conducted by the instructors in the departments under which the various aspects of the subject naturally fall and will be given in a spirit free from sectarianism.

BIBLE I.—*Old Testament History.*—The history of the Israelitish nation as narrated in the books of the Old Testament; the connections between sacred and profane history. The aim is to give the student some conception of the development of the cultural, ethical, and spiritual life of the nation. *(3 hours. Professor Buchholz.)*

BIBLE II.—*New Testament History.*—The period from Herod the Great to the death of John the Evangelist, with special attention to the life of Christ and the development of the early church. Lectures, Bible readings, textbook. *(3 hours. Professor Buchholz.)*

BIBLE III.—*The English Bible as Literature.*—Literary types found in the Bible and the excellence of the work as compared with other great examples of literature. The diction of the 1611 version will be contrasted with that of other translations and its effect upon English literature will be demonstrated. *(Professor Farr.)*

BIBLE IV.—*Old and New Testament Greek.*—See Greek VI. *(3 hours. Professor Anderson.)*

BIBLE V.—*The Bible as an Ethical and Religious Guide.*—Those parts of the Old and New Testament which bring out most vividly and directly the moral and religious elements will receive most attention. The aim is to give the student a keen

appreciation of the Bible as the best guide for human conduct. Lectures, Bible readings, studies of great sermons, textbooks on Evidences of Christianity. *(3 hours. Professor Cox.)*

BIOLOGY AND GEOLOGY

Professor Davis Assistant Professor Cody

For a description of the laboratories and collections of the department, see pages 26 and 27.

All the courses offered will not be given in any one year, the selection of those taught being determined by the demand.

BIOLOGY

BIOLOGY I*a*.—*General Biology*.—The fundamental principles of biology. Prerequisite to all other courses in biology. *(2 class and 2 laboratory periods per week; 4 hours.)*

BIOLOGY II*b*.—*General Botany*.—The vegetable functions, structure and life-histories of plants. *(2 class and 2 laboratory periods per week; 4 hours.)*

BIOLOGY III*b*.—*General Zoology*.—A general survey of the more important facts relating to the chief groups of animals. Representative forms of the different groups are studied in the laboratory. *(2 class and 2 laboratory periods per week; 4 hours.)*

BIOLOGY IV*b*.—*Physiology and Hygiene*.—The elements of human physiology, hygiene and sanitation. Intended primarily for students who elect only one year's work in biology. *(3 hours.)*

BIOLOGY V.—*Vertebrate Anatomy*.—Recitations and lectures on the comparative anatomy of vertebrates, accompanied by laboratory work on representatives of the principal groups. *(1 class and 2 laboratory periods per week; 3 hours. Prerequisite: Biology III*b*.)*

BIOLOGY VI.—*Economic Zoology*.—This course, designed primarily for agricultural students, is devoted chiefly to the study of insects and related forms, special attention being given to those of economic importance. This is followed by a brief consideration of the principal groups of vertebrates in their relation to agriculture. *(2 class periods and 1 laboratory period per week; 3 hours.)*

BIOLOGY VII*a*.— *Cytology and Microscopic Technic*.— A study of the protoplasm, cells and tissues of the animal body,

special attention being given to the development of the germ cells. In the laboratory emphasis is placed upon technic, each student being required to prepare a number of permanent mounts. *(2 class and 2 laboratory periods per week; 4 hours. Prerequisite: Biology IIIb.)*

BIOLOGY VII*b*.—*Vertebrate Embryology*.—Recitations and lectures on the development of vertebrates with special reference to the chick. *(2 class and 2 laboratory periods per week; 4 hours. Prerequisite: Biology VIIa.)*

BIOLOGY VIII*a*.—*Genetics*.—A study of the laws of variation and inheritance of morphological and physiological characters of animals and plants. *(2 class periods and 1 laboratory period per week; 3 hours.)*

BIOLOGY VIII*b*.— *Evolution*.— Organic evolution and the development of adaptations. *(2 hours.)*

BIOLOGY IX*a*.—*Plant Physiology*.—The fundamental life-processes, including digestion, assimilation, growth, respiration, reproduction, etc. *(1 class and 2 laboratory periods per week; 3 hours. Prerequisites: Biology IIb and Chemistry I.)*

BIOLOGY IX*b*.—*Plant Histology and Anatomy*.—The study of plant tissues and the technic of fixing, sectioning, staining, etc. *(1 class and 2 laboratory periods per week; 3 hours. Prerequisite: Biology IXa.)*

BIOLOGY X*a*.—*Plant Pathology*.—The causal agents, symptoms, diagnosis, and treatment of truck and citrus diseases. *(1 class and 2 laboratory periods per week; 3 hours. Prerequisite: Biology IXa.)*

BIOLOGY XI*a*.— *General Bacteriology*.—The morphology, physiology, and cultivation of bacteria and related micro-organisms. *(2 class and 2 laboratory periods per week; 4 hours. Prerequisite: Chemistry I.)*

BIOLOGY XII*b*.—*Agricultural Bacteriology*.—Soil bacteria and their influence on soil fertility, and bacteria in relation to milk and its products. *(1 class and 2 laboratory periods per week; 3 hours. Prerequisite: Biology XIa.)*

BIOLOGY XIII*b*.— *Sanitary Bacteriology*.—The principles of water supply, sewage disposal, disinfection, and the control of contagious diseases. *(1 class and 2 laboratory periods per week; 3 hours. Prerequisite: Biology XIa.)*

BIOLOGY XIV*ab*.—*Ecological Botany*.—A systematic study of plants and their relations of structure and habit to the con-

ditions under which they live. *(3 hours. Prerequisite: Biology II.)*

GEOLOGY

GEOLOGY I*a*.—*Physical Geology*.—Designed as an introduction to dynamical and structural geology. *(3 hours.)*

GEOLOGY I*b*.—*Historical Geology*.—A study of the geological history of the earth and its inhabitants. *(3 hours. Prerequisites: Geology Ia and Biology IIIb.)*

CHEMISTRY

Professor Leigh Assistant Professor Black

This department is intended to meet the requirements of liberal culture and to prepare students for work in the various fields of applied chemistry and research.

Never before have chemists been in such demand; never before have the demands upon them been so great.

The department is supplied with equipment for instruction in general, organic, analytical, and industrial chemistry. See page 26.

CHEMISTRY I.—*General Chemistry*.—First year college chemistry. Special effort is made to combine in due proportion the experimental and the theoretical phases of the subject. Emphasis is placed upon the intelligent writing of reactions. No previous knowledge of chemistry is required, but high-school physics is desirable. *(3 hours and 2 laboratory periods per week.)*

CHEMISTRY III.—*Qualitative Analysis*.—Mainly laboratory work, with class hour for theory, reports and tests by arrangement during the laboratory time. This course extends thruout the year, but is offered twice a year; one class starts the first semester, the other the second semester. *(3 hours.)*

CHEMISTRY IV.—*Agricultural Chemistry*.—For first semester, see Chemistry V; second semester: three lectures a week without laboratory. *(Open only to agricultural students; 4 hours.)*

CHEMISTRY V.—*Organic Chemistry*.—Lectures, recitations, and laboratory work, planned for pre-medical and agricultural students and others who intend to pursue organic phenomena. *(3 hours class and 2 laboratory periods per week; 5 hours.)*

CHEMISTRY VI.—*Industrial Chemistry*.—See Chemical Engineering.

CHEMISTRY VII*a*.— *Quantitative Analysis.*— Gravimetric analysis of simple compounds. *(First semester; 2 three-hour laboratory periods per week. Prerequisite: Chemistry III.)*

CHEMISTRY VII*b*. — *Quantitative Analysis.* — Sequel to Chemistry VII*a*. Volumetric methods in acidimetry and alkalimetry. *(Second semester; 3 hours.)*

CHEMISTRY IX*b*. — Laboratory and assigned readings, adapted, as far as practical, to the needs of students in agriculture and in other specialized lines. Prerequisites or corequisites are Chemistry V and VII*a* and *b*, tho the latter may be adapted to some extent to the needs of students in special lines. *(Second semester; 3 hours.)*

CHEMISTRY X.—See Chemical Engineering.

CHEMISTRY XI.— *Physical Chemistry.*—An introductory course, with some experimental work. *(3 hours.)*

CHEMICAL ENGINEERING

Professor Leigh Assistant Professor Black

CHEMISTRY III*e*.— *Qualitative Analysis.*— Mainly laboratory work with class hour for theory, reports and tests by arrangement. This course is given twice a year. Students may begin the course the first or the second semester. *(2½ year hours.)*

CHEMISTRY VI.—*Chemical Technology.*—Consideration of chemical principles involved in manufacturing and refining products of commercial importance: Fuels, sulphuric acid, the soda and chlorine industries, fertilizers, cements, glass, pigments, coal tar, mineral oils, soap, starch, sugar, fermentation industries, explosives, textiles, paper, leather, etc. Visits are made to such factories and chemical plants as may be accessible. *(Required of chemical engineering students; Senior year; 3 hours.)*

CHEMISTRY X*b*.— *Engineering Chemistry.*— Analysis of materials connected with engineering: Fuels, boiler waters, iron and steel, Portland cements, asphalt and coal tar products, mineral oils, vegetable oils, fats and waxes, paints, fertilizers, soaps, and food products. *(Required of chemical engineering students; Senior year; second semester; 10 actual hours.)*

CHEMISTRY XI.—*Physical Chemistry.* See Chemistry.

ENGLISH LANGUAGE AND LITERATURE

Professor Farr — Associate Professor Beck
*———— — Mr. Milam

ENGLISH I.—*Advanced College Rhetoric.*—Designed to train students in methods of clear and forceful expression. Instruction is carried on simultaneously in formal rhetoric, in rhetorical analysis, and in theme writing, the constant correlation of the three as methods of approach to the desired goal being kept in view. In addition a reading course is assigned each student. *(Required of all Freshmen; 3 hours.)*

ENGLISH II.—*History of Language and Literature.*—An outline course in the historical development of the English language and literature. Selections from important prose writers and poets; lectures on the history of the language and literature; a manual for reference; frequent reports from the individual students; constant use of the University library. *(3 hours.)*

ENGLISH III*a.*—*Description and Narration.*—A course for those who have completed English I and who desire to continue composition work. Practice in writing rather than rhetorical analysis will be emphasized. Text-book work will be supplemented by lectures and application of principles. Pictorial writing and incidental description will be stressed. Narrative practice will include the anecdote, tale, feature story, short-story, and fanciful and real narratives. *(First semester; 3 hours. Prerequisite: English I.)*

ENGLISH III*b.*—*Exposition.*—Study and composition of the editorial paragraph, editorial article, definition, criticism, formal essay, and informal essay. Some time is spent on special feature articles. *(Second semester; 3 hours.)*

ENGLISH IV*a.*—*Milton and the Epic.*—A study of Paradise Lost, around which are grouped studies in the Age of Milton and in the Epic as a type of Comparative Literature. The first four books of the poem are read in class; written reviews on the others alternate each week with essays from the student and lectures by the instructor. Readings in the minor poets of the age and in English translations of the great epics are assigned. *(First semester; 3 hours.)*

ENGLISH IV*b.*—*Shakespeare and the Drama.*—Three

*Instructor to be elected.

Shakespearian plays are read in class. On eight others a written review each fortnight, and on the alternate week essays from the students and lectures by the instructor. Readings in the English drama from the Cycle plays to contemporary production are assigned. *(Second semester; 3 hours.)*

ENGLISH V*a*.—*The Short-Story*.—An extensive study of American, French, English, Russian, Scandinavian, Italian, and German short-stories. Discussion and study of the conte, or short-story. Constant use of various texts and the library. The course is planned to furnish the student with a wide knowledge of short-stories and short-story writers to serve as a foundation for actual production. *(First semester; 3 hours. Prerequisite: Eng. I.)*

ENGLISH V*b*. — *Writing the Short-Story*. — Primarily a writing course. Discussion of various story types and story ideas. Round tables on original plots. Current magazines and their wants. Preparing and marketing manuscripts. *(Second semester; 3 hours.)*

ENGLISH VI*a*.—*American Poetry*.—A rapid survey of the development of poetry in the United States; critical study of a few of the more important authors (Bryant, Whittier, Longfellow, Emerson, Lowell, Poe). *(First semester; 3 hours.)*

ENGLISH VI*b*.— *Southern Literature*.— A detailed study, with extensive reading and essay work; examination of the claims of Florida authors. *(Second semester; 3 hours.)*

ENGLISH VII.—*The English Novel*.—The student reads a list of novels chosen to illustrate chronology and variety of species, analyzes minutely one novel from the technical side, masters the entire work and life of one novelist, and compares closely a novel and a dramatized version of it. It is hoped the student may be so grounded in the classics and his taste and judgment so trained that his reading of novels may not become mere intellectual dissipation. *(3 hours.)*

ENGLISH VIII*a*.—*Browning*.—Lectures and written exercises on Robert Browning's poems and dramas. Shorter Poems: Rabbi Ben Ezra, Andrea del Sarto, Songs from Pippa Passes, Childe Roland, Abt Vogler, My Last Duchess. Dramas: Luria, The Return of the Druses, A Blot in the 'Scutcheon. *(First semester; 3 hours. Prerequisite: Eng. II.)*

ENGLISH VIII*b*.—*Modern Poetry*.—Present-day poems and poets. American and English writers stressed. Discussion

of poetic values and modern poetic tendencies. *(Second semester; 3 hours. Prerequisite: Eng. II.)*

ENGLISH IX.—*The Romantic Revival.*—A study in literary movement: the causes and forces which underlie the movement, its phenomena and the authors and works which exhibit them, and a comparison with other movements in literature. The work of Prof. Beers will be used as a basis and the student will be led, by means of extensive reading, by investigation and essays, and by lectures, to realize the truth of his statements. *(3 hours.)*

ENGLISH X.—*Anglo-Saxon Grammar and Reading.*—Drill in the forms of the early language and an elementary view of its relation to the other members of the Aryan family and of its development into Modern English. The texts in Bright's Anglo-Saxon Reader are studied, and Cook's edition of Judith is read. *(3 hours.)*

ENGLISH XI.—*Chaucer and Middle English Grammar.*—During the first semester the works of Chaucer are read in and out of class. Pronunciation, forms, scansion, condition of text, analogs, and sources are examined. During the second semester, Morris and Skeats' Specimens, Part II, is studied in connection with informal lectures on Middle English viewed as developing from Anglo-Saxon into Modern English. *(Prerequisite: English X; 3 hours.)*

ENGLISH XII.—*Engineering Exposition.*—An attempt to give special training to Engineering students in the preparation of the various kinds of writing they will be called upon to do in the pursuit of their profession. It will consist largely of the writing of papers (upon subjects assigned by the departments in the College of Engineering), which will be criticised and revised. *(Engineering Seniors; 1 hour.)*

ENGLISH XIII.—*Newspaper Writing.*—Designed to train students to write clearly and concisely for newspapers. A small, four-sheet paper, twice a month, will furnish the laboratory work. Journalism. *(1 hour.)*

EXPRESSION AND PUBLIC SPEAKING

Mr. Chapman

EXPRESSION AND PUBLIC SPEAKING.—Particular attention is given to establishing a correct method of breathing, to

correcting faulty articulation, and to teaching the principles of interpretation by voice, gesture, and facial expression.

A small tuition fee is charged.

HISTORY AND POLITICAL SCIENCE

Professor Leake

The aims of this department are to give that knowledge of the facts and philosophy of History which belongs to a liberal education, to equip the student for more advanced work in the historical and social sciences, and to prepare the student for journalism or for the study of the law. With these ends in view the courses are planned to cover a broad field of study in a thoro manner. The department has the necessary library authorities for adequate collateral reading. All students beginning college work in History are advised when possible to take History I before taking up any of the more advanced courses.

The courses in Political Science are planned so that emphasis is laid upon the organization and functions of national, state, and local governments in the United States, with the dual purpose of preparing students for the privileges and responsibilities of citizenship, and of familiarizing them with a concrete example of government, as a foundation for more advanced work in Political Science. Several advanced courses are offered in Constitutional Law, International Law, and Comparative Government.

All the advanced courses offered are not given in any one year.

HISTORY

HISTORY I*a* and I*b*.—*Europe During the Middle Ages.*—A general course in the history of Western Europe from the Teutonic migrations to the close of the Seven Years' War. *(3 hours.)*

HISTORY II*a* and II*b*.—*American History, 1492 to 1830.*—The purpose of this course is to familiarize students with the history of America and of American institutions. Beginning with the period of discovery and colonization a detailed study is made of each colony. The Revolutionary movement, the period of the Articles of Confederation, the adoption of the Federal Constitution, and the social, political, and economic development of the United States up to 1830 are subjected to close analysis. *(3 hours.)*

HISTORY III*a* and III*b*.—*American History, 1830 to the Present.*—The background and causes of the War between the States, the rise and fall of the Confederacy, the Reconstruction Period, the industrial expansion of the United States, and America as a world-power. Especial emphasis is laid on our international relations. *(3 hours.)*

HISTORY IV*a* and IV*b*.—*Modern European History.*—The characteristic features of the Old Regime, the French Revolutionary and Napoleonic Periods, and the development of Europe from the Congress of Vienna to the Congress of Versailles. *(3 hours.)*

HISTORY V*a* and V*b*.—*English History.*—A brief survey of English History from the Anglo-Saxon invasions to the Norman Conquest, and a more detailed study of the period from 1066 to the present. *(3 hours.)*

HISTORY VI*a* and VI*b**.—*The Renaissance and the Reformation.*—A study of the causes, development and results of these great intellectual and religious movements. *(3 hours.)*

POLITICAL SCIENCE

POLITICAL SCIENCE I*a*. — *American Government and Politics.*—A study of the structure and functions of our national and state governments. Thruout the course present-day political problems of national and local interest will be made subjects of class discussion. *(First semester; 3 hours.)*

POLITICAL SCIENCE I*b*.—*Municipal Government.*—An outline of the growth of American municipalities and a study of the organs and functional mechanism of modern cities of the United States and Europe. Emphasis is laid upon the newer tendencies in municipal government, the commission form of government and the city-manager plan coming in for thoro analysis. *(Second semester; 3 hours.)*

POLITICAL SCIENCE II*a*.— *Comparative Government.*—A study of the constitutional structure and organization of the governments of the more important European countries. The object of the course is to enable the student to compare these governments, both in theory and in their practical workings, with each other and with our own. *(First semester; 3 hours.)*

POLITICAL SCIENCE II*b*.—*Principles of Political Science.*—A study of the origin, nature, and functions of the state and

*Open only to advanced students.

a critical examination of ancient, medieval, and modern political theories. *(Second semester; 2 hours.)*

POLITICAL SCIENCE III*a* and III*b*.—*Constitutional Law of the United States.*—Intended to familiarize the student with the leading principles of the American constitutional system. The course will deal principally with the Federal Constitution and with the decisions of the Supreme Court of the United States and will be found of special value to those students who contemplate advanced work in political science or who intend to enter upon the study of the law. *(3 hours.)*

POLITICAL SCIENCE IV*a* and IV*b**.—*International Law.*—The object of this course is to set forth the rules and principles of International Law as a positive system with a historical background of custom and convention. The attributes of sovereign states, and their rights and duties as members of the family of nations, in peace, in war, and in the relation of neutrality will receive adequate treatment. *(3 hours.)*

POLITICAL SCIENCE V*a and* V*b**.—*Political Theories.*—A comprehensive survey and discussion of the more important political theories. *(3 hours.)*

MATHEMATICS

Professor Simpson Assistant Professor Perry
Acting Assistant Professor Lucas

The work in the Department of Mathematics is planned with a threefold purpose in view:

1. For those who intend to *specialize* in Mathematics it provides the preparation for more advanced work. Several advanced courses are offered such students.

2. To those who need Mathematics as an *instrument* it offers opportunities to become familiar with this instrument. The application of Calculus not only to Physics, Chemistry, and Engineering, but even to such seemingly remote realms as Psychology and Political Economy, makes it advisable that this class should continue the study of Mathematics at least so far as to include Calculus.

3. To others it gives logical training in Analysis and Proof, introduces them to that scientific method par excellence of the Hypothesis, and develops the idea of a deductive system in its classical form.

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*Open only to advanced students.

MATHEMATICS A.—Solid Geometry. *(2 hours.)*

MATHEMATICS B.—Plane Trigonometry and Logarithms. *(2 hours.)*

MATHEMATICS I.—Plane Analytic Geometry and College Algebra. *(3 hours.)*

MATHEMATICS II.—Spherical Trigonometry and College Algebra. *(1 hour; not given in 1921-22.)*

MATHEMATICS III.—Differential and Integral Calculus. *(3 hours.)*

MATHEMATICS IV.—Solid Analytic Geometry and Calculus. *(2 hours.)*

MATHEMATICS V.—Advanced Calculus and Differential Equations. *(2 hours.)*

MATHEMATICS VI.—Theory of Equations, Complex Numbers, and Determinants. *(3 hours.)*

MATHEMATICS VII.—Modern Projective Geometry. *(2 hours.)*

MODERN LANGUAGES

Professor Crow

Extensive courses of reading, in and out of class, frequent exercises, oral and written, and studies in lit ature and language form the chief feature of instruction.

Authors and textbooks vary from year to year. Tho the classics are not neglected, special attention is paid to the literature of the Nineteenth Century.

All the courses offered will not be given in any one year.

FRENCH

FRENCH A.—*Elementary Course.*—Pronunciation, forms, elementary syntax, dictation, written exercises, memorizing of vocabularies and short poems, translation. *(3 hours.)*

FRENCH I.—*Intermediate Course.*—Work of elementary course continued, advanced grammar, including syntax, prose composition, translation of intermediate and advanced texts, sight reading, parallel. *(3 hours.)*

FRENCH II.—*Advanced Courses.*—Syntax, stylistic, composition, history of French literature, selections from the dramatists or novelists, as class may decide. *(3 hours.)*

FRENCH III.—*Romance Philology.*—*(Prerequisites: French II and Latin II; 3 hours.)*

SPANISH

SPANISH A.—*Elementary Course.*—Pronunciation, forms, elementary syntax, dictation, written exercises, memorizing of vocabularies and short poems, translation. *(3 hours.)*

SPANISH I.—*Intermediate Course.*—Work of elementary course continued, advanced grammar, including syntax, prose composition, translation, parallel. *(3 hours.)*

SPANISH II.—*Commercial Correspondence.*—*(Optional, subject to instructor's permission; 3 hours.)*

MUSIC

Mr. Brown

This department aims to foster a love for good music and to encourage students to use their musical abilities and training for the benefit of themselves and others. It trains and directs the student chorus, the chapel choir, the glee and mandolin and guitar clubs, the orchestra, and the University band, and offers private instruction in voice and in violin and other instruments. It seeks to cooperate with the musical organizations of Gainesville and in conjunction with them to give several public entertainments during the year.

Owing to the lack of funds for the department, a small tuition fee is charged for private instruction.

PHYSICAL EDUCATION

Professor Klein

This department has jurisdiction over all athletic, aquatic, and gymnastic activities. It seeks (1) To develop health, vigor, and good physical habits; (2) to provide an incentive and an opportunity for every student to secure at least one hour's physical activity daily as a balance to the sedentary demands of university life; (3) to conserve the social and moral values of games and sports; (4) to encourage and develop intramural sports; and (5) to make athletic sports an essential factor in military training.

Students will not be excused from the prescribed training during the first two years unless they substitute a satisfactory equivalent. They are supposed to be able to swim a distance of fifty yards by the end of the Sophomore year. No student will be permitted, however, to participate in intercollegiate or intramural competitive games or to become a candidate for

football or other team, until he has secured, after examination, the written permission of a competent physician.

Activities are conducted out of doors in so far as the weather permits. The regulation suit consists of white sleeveless shirt, running pants, supporter, and rubber-soled shoes.

When needed, special coaches are engaged.

The major sports, football, basketball, track, baseball and tennis are open to every student who is mentally and physically fit. A thoro medical examination is given every candidate, and he must maintain a satisfactory daily average in twelve class room periods per week. All rules of the S. I. A. A. are rigidly adhered to. Every student is encouraged to fit himself to participate in these sports and games. The coaching offered aims to fit students to play efficiently, and to do successful coaching.

I. DEVELOPMENT EXERCISES.— *(Required of Freshmen and delinquent Sophomores; credit, 1 hour; 2 actual hours.)*

II. ADVANCED EXERCISES.— Various athletic activities. *(Required of Sophomores; credit, 1 hour; 2 actual hours.)*

III. FIRST AID TO INJURED.—*(Elective for Freshmen and Sophomores; credit, 1 hour; 2 actual hours.)*

PHYSICS

Professor Benton Assistant Professor Perry

The work of this department is intended to meet the needs, on the one hand, of those who study physics as a part of a liberal education and, on the other hand, of those who will have to apply physics as one of the sciences fundamental to engineering, or to medicine.

Instruction is given by (1) recitations based upon lessons assigned in textbooks; (2) laboratory work, in which the student uses his own direct observation to gain knowledge of the subject; (3) lectures, in which experimental demonstrations of the principles under discussion are given; and (4) seminar work in the advanced courses, in which the various members of the class take up special problems requiring extended study or investigation and report upon them.

The physical laboratory (see page 27) is well equipt for the experiments usually required in undergraduate laboratory work in the best colleges. The equipment has been greatly

increased in the last few years and additions are made to it from year to year.

PHYSICS I.—General physics, including mechanics, heat, acoustics, and optics, but not electricity and magnetism. *(Prerequisite: Plane Trigonometry; 1 lecture and 2 recitations per week.)*

PHYSICS II.—General laboratory physics, to accompany Physics I. *(2 exercises of 2 hours each per week.)*

PHYSICS III.—General electricity and magnetism, being a continuation of Physics I. *(2 recitations and one 2-hour laboratory exercise per week.)*

PHYSICS V.—General physics, including mechanics, heat, sound, light, electricity, and magnetism. Designed to meet the needs of the general student, and of those taking the Pre-Medical Course. *(3 recitations and one 2-hour laboratory period per week.)*

ADVANCED COURSE IN PHYSICS.—Six advanced courses in physics, as elective for Juniors, Seniors, and Graduate Students, have been planned: Advanced Experimental Physics, General Mathematical Physics, Mechanics and Acoustics, Heat, Optics, Theoretical Electricity. Each course is arranged to extend thru two semesters and to require three hours per week of classroom work, or equivalent time in the laboratory.

SOCIOLOGY AND ECONOMICS

Professor Bristol

The aims of this department are to equip the student for an intelligent appreciation of and participation in discussions of social and economic problems; to make for more efficient citizenship; to provide the sociological training so essential for those preparing for law, teaching, the ministry, or professional social work, and to assist so far as possible in the special training needed by those looking forward to a business career.

SOCIOLOGY

SOCIOLOGY I*a* and I*b* form a general introduction to all courses given in the department.

SOCIOLOGY I*a*.—*Introduction to the Social Sciences. (First semester; 3 hours.)*

SOCIOLOGY I*b*.—*Social and Industrial Evolution.*—The doc-

trine of evolution as applied to man, society and social institutions, with special reference to industry. *(Second semester; 3 hours.)*

SOCIOLOGY III*b*.—*Rural Sociology*.—A broad survey of the field of rural life in its social aspects; methods of improvement. *(Second semester; 3 hours.)*

SOCIOLOGY IV*a*.—*General Sociology*.—A critical study of social forces, processes and products; principles underlying social organization and social progress. *(Elective for Juniors and Seniors. First semester; 3 hours.)*

SOCIOLOGY IV*b*.—*Race Problems*.—History, causes and effects of immigration; methods of assimilation. The negro problem. *(Prerequisites: one course in Sociology. Second semester; 3 hours.)*

SOCIOLOGY V*b*.—*Social Psychology*.—A study of the psychological interaction between the individual and social groups; suggestion and imitation; psychology of the crowd. Application to social and industrial problems. *(Prerequisites: General psychology or one course in sociology. Second semester; 3 hours.)* Omitted in 1921-1922.

SOCIOLOGY VI*a*.—*Introduction to Social Philosophy*.—A critical and constructive study of modern writers in the field of social theory. *(Primarily for Seniors and graduate students. First semester; 3 hours.)* Omitted in 1921-1922.

SOCIOLOGY VII.—*Seminar*.—Social investigation. *(Primarily for Seniors and graduates; hours to be arranged.)* Omitted in 1921-1922.

ECONOMICS

Economics I or VI*a* should precede all other courses.

ECONOMICS I.—*Principles of Economics*.—A general course covering the fundamental principles of consumption, production, exchange and distribution of wealth with practical application to concrete problems. *(First and second semesters; 3 hours.)*

ECONOMICS II*a*.—*Money and Banking*.—The nature and functions of money; functions and principles of banking as revealed in the banking systems of leading countries. *(First semester; 3 hours.)*

ECONOMICS II*b*.—*Corporation Finance*.—Rise, growth and development of large business organizations; corporations,

trusts, pools, and holding companies; financial and social problems involved. *(Second semester; 3 hours.)* Omitted in 1921-1922.

ECONOMICS III*a*.—*Public Finance*.—Principles governing expenditures of modern governments; sources of revenue; public credit; principles and methods of taxation and of financial administration as revealed in the fiscal systems of leading countries. *(Second semester; 3 hours.)*

ECONOMICS III*b*.—*Transportation*.—Nature, history and problems of railway transportation, especially in the United States; rates, discrimination; government regulation, control and ownership. *(Second semester; 3 hours.)* Omitted in 1921-1922.

ECONOMICS IV*a*.—*Labor Problems*.—Origin and nature; methods of amelioration and reform; woman and child labor, sweating, unemployment, labor legislation; co-operation, profit sharing, insurance, industrial education. *(First semester; 3 hours.)* Omitted in 1921-1922.

ECONOMICS IV*b*.—*Economic History of the United States*. —A general but comprehensive history of the growth of American industry and commerce with the social and economic problems involved. *(Second semester; 3 hours.)* Omitted in 1921-1922.

ECONOMICS VI*a*.— *Introduction to Economics*.— A brief study of the principles of economics and their application to practical problems. *(Primarily for agricultural and engineering Juniors; 3 hours.)*

ECONOMICS VI*b*.— *Business Organization and Management*.—Principles of business organization; types of organization; manufacturing plants and equipment; cost accounting; buying, selling, advertising; welfare work. *(Second semester; 3 hours.)* Omitted in 1921-1922.

ECONOMICS VIII.—*Seminar*.—Topic for 1921-1922, "Problems of Business Management." *(Primarily for Seniors and graduate students; 2 hours.)*

ANNOUNCEMENTS OF NEW COURSES IN PHILOSOPHY AND PSYCHOLOGY

Professor Enwall

The primary aim of this department is to give the student a broad outlook upon life in general, as well as a better understanding of his own life from psychological, ethical, and metaphysical viewpoints. Philosophy lies nearer today than ever before to the various sciences, on the one hand, and to the demands of practical life on the other.

Another very important aim is to aid in the professional training of teachers. For description of the equipment for carrying on mental and physical tests, see page 25.

Students may begin with Course I*a*, II*a*, III*a* and IV*a*. Juniors and Seniors may begin also with Course V*a*.

PHILOSOPHY I*a*.—*General Psychology*.—Facts and theories current in general psychological discussion: the sensations, the sense organs, and the functions of the brain; the higher mental functions—attention, perception, memory, feeling, emotion, volition, the self; and like topics. *(First semester; 3 hours.)*

PHILOSOPHY I*b*.—*Logic, Inductive and Deductive*.—The use of syllogisms, inductive methods, logical analysis, and criticisms of fallacies. *(Second semester; 3 hours.)*

PHILOSOPHY II*a*.—*Philosophy of Nature*.—Man's relation to and his place in Nature; the various philosophical doctrines: Animism, Pantheism, Materialism, Realism, Agnosticism, Humanism, Idealism, etc. *(First semester; 3 hours.)*

PHILOSOPHY II*b*.—*Experimental Psychology*.—Mainly laboratory work with standard apparatus on the current problems in Experimental Psychology. Special attention given to methods of psychological investigation and the collection and treatment of data. *(Second semester; 3 hours.)*

PHILOSOPHY III*a*.—*Ethics*.—Principles of Ethics: study of such topics as goodness, happiness, virtue, duty, freedom, civilization, and progress; history of the various Ethical Systems. *(First semester; 3 hours.)*

PHILOSOPHY III*b*.—*Social Psychology*.—Influences of social environment upon the mental and moral development of the individual. *(Second semester; 3 hours.)*

PHILOSOPHY IV*a*.—*History of Ancient Philosophy*.—The development of philosophic thought from its appearance among the Ionic Greeks to the time of Descartes. Special attention will be given to the philosophy of Plato and Aristotle. *(First semester; 3 hours.)*

PHILOSOPHY IV*b*.—*History of Modern Philosophy*.—A continuation of IV*a*. Special attention will be given to the works of Descartes, Spinoza, Leibnitz, Kant, Hume, etc. *(Second semester; 3 hours.)*

PHILOSOPHY V*a*.—*Advanced Psychology*.—The theoretical problems in the field of modern psychology; the practical aspects of psychology as applied to Business, Law, Medicine, Education, etc. *(First semester; 3 hours.)*

PHILOSOPHY V*b*.—*Abnormal Psychology*.—Abnormal phases of mental life: dreams, illusions, hallucinations, suggestions, hypnotism, hysteria, diseases of the memory, diseases of the will, etc. Special attention given to mental hygiene. *(Second semester; 3 hours.) (Open to Seniors and advanced pre-medical students only.)*

BRIEF SKETCH OF DR. ENWALL, THE NEW PROFESSOR-ELECT

Dr. H. O. Enwall, who comes to us from the University of Chicago to take charge of the Department of Philosophy and Psychology, comes with a unique record. Graduated as an officer from a naval school in Sweden at the early age of eighteen, he reached our shores the following spring and for two years sailed in the old American full-rigged ships, finally coming around Cape Horn to San Francisco in a journey that took six months and ten days. While at San Francisco he joined the American Revenue Marine and saw service in Alaska, Sandwich Islands, and Southern California. He entered the University of California as a freshman in 1898, and was appointed as a Surfman in the U. S. Life-Saving Service the following year (1899) and attached to the Evanston station (Ill.), which is situated on the campus of Northwestern University.

Mr. Enwall graduated from "Northwestern" in 1902, with high distinction, having during his three years been the representative of his alma mater in both inter-collegiate debate and oratory. The next three years were spent at Boston University for the degree of S. T. B.

In 1906, he was received into full membership of the Cincinnati Conference of the Methodist Episcopal Church and stationed at Mt. Auburn, Cincinnati and later at Trinity church, Chicago.

In 1913 Mr. Enwall returned to Boston and Harvard Universities for his Ph.D. work in Philosophy, receiving his degree from Boston in 1915, at which time he received, also, the American University Travelling Fellowship for study with Professor Bergson at Paris. The war having virtually closed both the universities at Paris, Mr. Enwall took his fellowship to Chicago and began the study of Psychology under Dean Angell (now President Angell of Yale University), Professor Carr, and others. To this work he has given nearly four years and is now at work on an experiment which is to be presented, as soon as completed, as the thesis for his Ph.D. in psychology.

Mr. Enwall comes highly recommended by such men as President Angell, Professor Carr, Professor Tufts, Judge Rogers, Dean of Yale Law School, Bishop McDowell, and others.

COLLEGE OF AGRICULTURE

WILMON NEWELL, *Dean*

GENERAL STATEMENT

The College of Agriculture has three divisions:

1. Instructional Division (the College proper).
2. Research Division (Experiment Station).
3. Extension Division.

THE COLLEGE

FACULTY.—Wilmon Newell, E. C. Beck, A. P. Black, R. W. Blacklock, L. M. Bristol, H. G. Clayton, M. D. Cody, H. S. Davis, J. M. Farr, W. L. Floyd, E. W. Jenkins, P. H. Lucas, T. R. Leigh, J. M. Leake, C. K. McQuarrie, F. Rogers, N. W. Sanborn, A. L. Shealy, T. M. Simpson, A. P. Spencer, Ralph Stoutamire, A. W. Sweet, J. E. Turlington, B. Ward, C. H. Willoughby.

Special Lecturers for 1920-1921

Dr. E. W. Berger, *Entomologist, State Plant Board.*
Dr. W. F. Blackman, *Member State Livestock Sanitary Board.*
R. C. Blake, *Poultryman.*
Dr. J. W. DeMilly, *State Veterinarian.*
Miss Minnie Floyd, *Specialist in Home Poultry Work.*
W. C. Funk, *Office of Farm Management, U. S. Dept. Agri.*
Prof. H. Harold Hume, *President State Horticultural Society.*
S. T. Fleming, *Bureau of Crop Estimates, U. S. Dept. Agri.*
Hon. W. A. McRae, *Commissioner of Agriculture.*
Dr. J. H. Montgomery, *Quarantine Inspector, State Plant Board.*
F. M. O'Byrne, *Nursery Inspector, State Plant Board.*
Dr. Herbert Osborn, *Entomologist, Ohio State University.*
Capt. R. E. Rose, *State Chemist.*
Frank Stirling, *General Inspector, State Plant Board.*
R. W. Storrs, *Member State Livestock Sanitary Board.*
Dr. H. J. Webber, *Plant Breeder.*

Special lectures are given also by members of the Experiment Station and Extension Staffs.

AIM AND SCOPE.—The College was established under the Acts of Congress creating and endowing institutions for the liberal and practical education of the industrial classes. Recognition of agriculture as a branch of collegiate instruction is a distinctive feature of schools thus founded.

The aim of the College is to afford young men the best possible opportunity for gaining technical knowledge and training in the art and science of agriculture. About one-third of the student's time is devoted to technical studies, the other two-thirds to cultural studies and basic sciences. A foundation is thus laid which will enable graduates to become leaders in educational work or effective producing agriculturists.

EQUIPMENT.—*Agricultural Hall* provides space for offices and classrooms and laboratories for the departments of agronomy, animal husbandry and dairying, agricultural engineering, poultry, veterinary science, and horticulture.

Libraries.—Many works on agriculture and horticulture have recently been added to the general library. A trained librarian aids students in finding needed references. Each department has, furthermore, a small collection of well-selected volumes, which are always accessible. The Experiment Station library contains a very complete set of bulletins from the experiment stations of the world and from the U. S. Department of Agriculture, all fully indexed and carefully filed.

Farms.—The College farm, used for instruction and for growing crops with which to feed the instruction herds, consists of 225 acres: 10 acres for trucking, 100 acres for pasture and field crops, 5 acres for orchard, 15 acres for soiling purposes and stock lots, and 5 acres for buildings and grounds. The equipment includes a hay and storage barn, a sweet-potato storage house, a farm-foreman's house, a dairy barn, a machinery shed and corn crib, a potting house, poultry houses and yards, and several irrigation systems. The Experiment Station farm and farm buildings are easily accessible.

AGRONOMY DEPARTMENT

The *Agronomy Department* occupies four rooms—a large, well-lighted and equipt soil laboratory, with adjoining storage and work room, an office, and a classroom.

The soil laboratory is equipt with microscopes, sampling augurs, tubes, and carriers; balances, ovens, soil thermome-

ters, packers, cylinders, and tubes; moisture absorption box with trays; percolation, capillary, and evaporation apparatus; sieves, shaker, etc. There are three large stone-top desks, with individual lockers for seventy-two students. The storage room is provided with soil bins, packer, cases, and shelving in abundance.

For *Agricultural Engineering* work there are two laboratories—the one for farm motors and iron work, the other for farm machinery. They are equipt with gasoline engines, feed grinders, stalk cutter, walking and riding plows, various types of harrows, walking and riding cultivators, seeders, surveying implements, several of the best types of power sprayers and farm tractors, a farm lighting-system, etc. Stress is laid upon instruction in farm machinery, because labor-saving appliances have not yet come into general use in Florida.

HORTICULTURAL DEPARTMENT

The *Horticultural Department* has a large, well-furnished lecture-room, a laboratory equipt with microscopes, wall-cases for preserved specimens, and a storeroom for material and supplies. In addition to these, provision is made for practical work outdoors. A propagating house and a nursery on the farm are used in carrying on stratification, layerage, cuttage, budding, grafting, and other methods of plant propagation; trees of different kinds are growing in the orchard; hot beds and cold frames are provided for starting young plants; an irrigation plant has been installed with Skinner, Campbell, Skinner-Stephens, Florida Favorite, and modified Skinner sprinkling devices and a surface furrow system; and other facilities for growing fruits and vegetables.

ANIMAL HUSBANDRY DEPARTMENT

The *Animal Husbandry Department* is provided with a lecture-room containing seats for eighty students and concrete floor upon which to exhibit animals. The equipment includes scales, measuring apparatus and a large assortment of lantern slides representing the various breeds. In the dairy barn a stock-judging arena, 30x40 feet, has been provided for practice in scoring animals.

For work in *Dairying* the College has a large, well-lighted laboratory, equipt with several makes of hand-power cream separators, churns, and butter workers; milk coolers, gravity

creamer, vats for cream ripening and cheese making; scales, wash sinks, sterilizer, and minor apparatus.

The milk-testing laboratory contains working desks and machinery for all modern tests of dairy products. The equipment includes Babcock testers of different sizes, cream scales, lactometers, acidmeters, butter-moisture tests, and the necessary glassware, reagents, etc.

For work in *Poultry Husbandry* are used an office, a storeroom, and a laboratory. The equipment includes several different types and sizes of incubators and brooders, feed hoppers, trap nests, and various poultry-yard appliances. Excellent flocks of Barred Plymouth Rock, Single Comb White Leghorn and Buff Wyandotte breeds have recently been secured for breeding and instruction purposes; other breeds will be added in the future. Laboratory equipment is available for study of the development of the egg and chick, and for practice in caponizing, killing, dressing, and marketing poultry according to the most approved methods. Students will assist in the care and management of the poultry at the College, and make visits to private poultry plants in the vicinity. Poultry exhibits at the County and State Fairs will be used for practice in judging the different breeds.

The *Barns* and *Livestock* include: A barn for the horses and mules used on the farm and campus; a large dairy barn of modern sanitary construction, provided with concrete floors and silos, steel stanchions and fittings, for the herd of high-grade Holsteins and registered Jerseys belonging to the Experiment Station; representative animals of the Shorthorn and Aberdeen Angus breeds; pens and grazing-yards with modern shelters and equipment, containing breeding herds of Berkshire, Poland China, Duroc Jersey, Tamworth, and Chester White hogs. Other breeds and classes of animals are being added from year to year. A concrete dipping-vat, built in cooperation with the Florida State Board of Health, is used for demonstrations of cattle-tick eradication.

The *County and State Fairs of Florida* provide excellent practice each year in showing and in judging animals. Students are encouraged to take part in judging contests and to aid in show-ring work. The Southeastern Fair, Atlanta, Ga., offers prizes and medals to competing teams from southern agricultural colleges. The Alachua County Fair, at Gaines-

ville, Florida State Fair, at Jacksonville, and the South Florida State Fair at Tampa offer cash prizes and diplomas to students making the best records in stock judging. Several large herds of cattle and hogs within a few miles of the University, in Alachua and Marion counties, are available for inspection and judging purposes. The meat-packing houses and dairy plants of Jacksonville and vicinity are freely offered for study, and trips for this purpose under the guidance of instructors are arranged annually.

VETERINARY DEPARTMENT

The *Veterinary Department* is provided with a lecture-room, with seats for eighty students, equipt with cabinets containing various medicines and surgical instruments. The laboratory is supplied with microscopes for the study of normal and diseased tissue specimens. The equipment includes also mounted skeletons of the horse and ox, an assortment of charts, models of the organs of the various farm animals, preserved specimens of diseased organs and of parasites, and a good library.

THE AGRICULTURAL CLUB.—This is a voluntary association of students of the College. Its purpose is to give training in public speaking and in preparation for leadership. The programs consist mainly of speeches, essays, and of debates on agricultural or civic topics.

SCHOLARSHIPS.—*County Scholarships.*—Provision has been made by Legislative act for a scholarship, sufficient to pay the board of a student in the College of Agriculture, from each county, to be provided for at their discretion by the various Boards of County Commissioners. The recipient is to be selected by competitive examination from among the qualified applicants.

Whether such a scholarship has been provided for may be learned from the Clerk of the Board of Commissioners or the Demonstration Agent of the county in question. Other information regarding it may be obtained from the College of Agriculture.

Boys' Clubs Scholarships.—The Florida Bankers' Association offers club boys three prize scholarships, of $100 each, in the College of Agriculture: one for the Western, one for the Central, and one for the Southern district.

Williamson and Dennis, of Jacksonville, offer two first-prize scholarships, of $250 each, in the College of Agriculture: one to the State Pig Club Champion, the other to the State Beef-Calf-Club Champion.

LOAN FUNDS.—*William Wilson Finley Foundation.*—As a memorial to the late President Finley and in recognition of his interest in agricultural education, the Southern Railway Company has donated to the University the sum of one thousand dollars ($1,000), to be used as a loan fund. No loan from this fund to an individual is to exceed $150 per year. Recipients are selected by the Dean of the College of Agriculture, to whom all applications should be directed.

Loan funds available for students in any college of the University, as well as the conditions under which loans are made, will be found described on page 40.

REMUNERATIVE AND INSTRUCTIVE LABOR.— Opportunities frequently occur for students to work in the fields and truck gardens, about the barns, in the buildings, and at the Agricultural Experiment Station. Those who, during vacation periods, engage in agricultural pursuits will be markedly benefited and after graduation will command more desirable positions or find their efforts on the farm more effective. (See also Opportunities for Earning Expenses, page 38.)

Donations and Loans.—The laboratories have been supplied with much of their farm machinery for instructional purposes thru the generosity of the following manufacturers and distributors:

Stover Manufacturing Company, Freeport, Ill.
Florida Agricultural Supply Co., Jacksonville, Fla.
Oliver Chilled Plow Company, South Bend, Ind.
Alamo Farm Lighting Plant, Holt Electric Co., Jacksonville, Fla.
Bissell Harrow Company, Fort Valley, Ga.
Hardie Spraying Machine, Gulf Fertilizer Co., Tampa, Fla.
Hercules Engine Company.
Ford Motor Company, Jacksonville, Fla.
Owensboro Ditcher Co., Owensboro, Ky.
Niagara Sprayer Co., Middleport, N. Y.

COURSES.—The following courses are offered:

1. A Four-Year Course.
2. A Middle Course of Two Years.
3. A One-Year Course.
4. Two Four-Month Courses.
5. Four Ten-Day Courses for Farmers.

FOUR-YEAR COURSE

ENTRANCE REQUIREMENTS.—See pages 42 to 48.

GROUPS.—The group courses offered afford the individual student opportunity for preparing for that branch of agriculture in which he is most interested. The Agronomy Group should be selected by those wishing to pursue general farming; the Animal Husbandry Group by those interested in fruit growing or truck farming; and the Agricultural-Chemical Group by those desiring to become analysts.

No student will be allowed to take more than eighteen hours of work, unless his general average during the previous year was at least 87, with no failure in any study; or more than twenty hours, unless the previous year's average was at least 90, with no failure.

MILITARY SCIENCE AS ELECTIVE.—Military Science III and IV may be substituted for any other elective on a basis of 2 year-hours per year.

CREDITS FOR PRACTICAL WORK.—Students who, by previous arrangement with the head of a department and the Dean, do practical work, during their course of study, in any recognized agricultural pursuit, and who render competent and faithful service, will, on returning to College and presenting a satisfactory written report, be entitled to one semester-hour credit for each month of such work. Such credit shall not total more than six semester-hours in the Two-Year and Four-Year courses.

FARM EXPERIENCE REQUIRED.—At least three months of practical work is required before graduation, but credit for this will be given only as stated above.

DEGREE.—The work outlined in the following tables, whatever the major subject, leads to the degree of Bachelor of Science in Agriculture (B.S.A.).

CURRICULUM

Leading to the Degree of Bachelor of Science in Agriculture

FOR ALL GROUPS

Freshman Year

Names of Courses	Nature of Work	*Hours per Week	
Agricultural Engineering I	Farm Machinery and Motors	4	0
Agronomy I	Elements of Agronomy	2	2
Animal Husbandry I	Types and Breeds of Animals	0	4
Biology I	General Biology	4	0
Biology II	General Botany	0	4
English I	Advanced College Rhetoric	3	3
Horticulture I	Plant Propagation	2	2
Mathematics B	Plane Trigonometry	2	2
†Military Science I		1	1
		18	18

Sophomore Year

Agronomy II	Field Crops	3	0
Agronomy III	Forage Crops	0	3
Biology VI	Economic Zoology	3	3
Chemistry I	General Chemistry	5	5
Horticulture II or Animal Husbandry II & III	Trucking / Animal Feeding and Breeding	2	2
††Military Science II		1	1
Veterinary Science I or Elective	Veterinary Elements	0	3
Elective		1	0
		15	17

AGRONOMY GROUP

Junior Year

Names of Courses	Nature of Work	*Hours per Week	
Agronomy IV	Fertilizers	0	3
Biology IX	Plant Physiology	3	0
Biology XI	General Bacteriology	4	0
Biology XII	Agricultural Bacteriology	0	3
Chemistry V	Organic Chemistry	5	5
Economics VI*a* or Sociology III*b*	Introduction to Economics / Rural Sociology	3	3
Elective		1	2
		16	16

*The first column gives the hours per week for the first semester, the second column the hours per week for the second semester.

†Military Science I will not receive credit unless taken with drill, for which 2 credit hours will be granted.

††In addition, 2 credit hours for drill will be granted.

Senior Year

Agricultural Engineering III	Irrigation and Drainage	3	0
Agronomy V	Soil Technology	3	3
Agronomy VI-VII	Farm Management	3	3
Biology X	Plant Pathology	0	3
Horticulture IX	Landscape Gardening	0	2
Elective		7	5
		16	16

ANIMAL HUSBANDRY GROUP

Junior Year

Names of Courses	Nature of Work	*Hours per Week	
Animal Husbandry IV	Beef Production	2	0
Animal Husbandry V	Swine Production	0	2
Biology XI	General Bacteriology	4	0
Biology XII	Agricultural Bacteriology	0	3
Dairying I	Dairy Products	3	0
Dairying II	Dairy Farming	0	3
Poultry Husbandry I	Farm Poultry	0	3
Veterinary Science II	Veterinary Anatomy & Physiology		
Elective			
		16	16

Senior Year

Agronomy VI-VII	Farm Management	3	3
Agricultural Engineering III	Irrigation and Drainage	3	0
Poultry Husbandry II	Incubation and Brooding	0	2
Poultry Husbandry III	Poultry Management	0	2
Veterinary Science III	Diseases of Farm Animals	3	3
Elective		7	6
		16	16

HORTICULTURAL GROUP

Junior Year

Names of Courses	Nature of Work	*Hours per Week	
Agronomy IV	Fertilizers	0	3
Biology IX	Plant Physiology	3	0
Biology XI	General Bacteriology	4	0
Biology XII	Agricultural Bacteriology	0	3
Horticulture IV	Citrus Culture	3	0
Horticulture V	Citrus Harvesting, Marketing and Judging	0	2
Horticulture VII	Deciduous and Subtropical Fruits	3	0
Horticulture VIII	Plant Breeding	0	3
Economics VI*a* or Sociology III*b*	Introduction to Economics / Rural Sociology	3	3
Elective		0	2
		16	16

*The first column gives the hours per week for the first semester, the second column the hours per week for the second semester.

Senior Year

Agronomy V	Soil Technology	3	3
Agronomy VI, VII	Farm Management	3	3
Biology X	Plant Pathology	0	3
Horticulture IX	Landscape Gardening	0	2
Horticulture VI or Horticulture X	Insects and Diseases of Citrus Fruits / General Forestry	3	0
Elective		7	5
		16	16

AGRICULTURAL-CHEMICAL GROUP

Junior Year

Names of Courses	Nature of Work	*Hours per Week	
Agronomy IV	Fertilizers	0	3
Bacteriology I	General Bacteriology	3	0
Bacteriology II	Agricultural Bacteriology	0	3
Chemistry III	Qualitative Analysis	3	3
Chemistry V	Organic Chemistry	5	5
Elective		5	2
		16	16

Senior Year

Chemistry VII	Quantitative Analysis	3	3
Chemistry IX	Chemistry of Soils, Fertilizers, etc.	0	3
Economics VI*a* or Sociology III*b*	Introduction to Economics / Rural Sociology	3	3
Elective		10	7
		16	16

*The first column gives the hours per week for the first semester, the second column the hours per week for the second semester.

DEPARTMENTS OF INSTRUCTION

AGRONOMY AND AGRICULTURAL ENGINEERING

Professor Turlington Assistant Professor Rogers

AGRONOMY

The laboratory work and field observation aim to fix the principles learned in the classroom and to give them practical application.

AGRONOMY A.—*Elements of Agronomy.*—The soil as related to plant growth and the principles governing the production of the field and forage crops of Florida. *(Short Courses, Vocational and Practice High School; 3 hours.)*

AGRONOMY B*b*.—*Fertilizers.*—An elementary study of fertilizers, their nature and reaction on the soil and crop; fertilizer formulas and home mixing. A thoroly practical course, dealing with Florida conditions. *(Short Courses, Vocational and Practice High School; 3 hours.)*

AGRONOMY I*a*.—*Elementary Soils.*—The origin, formation, and classification of soils; general methods of soil management and the adaptation of soils to the requirements of plants. *(Freshman year; 2 hours.)*

AGRONOMY I*b*.— *Elementary Crops.*—The origin, classification, and use of crop plants; and the fundamental processes of plant growth and reproduction. *(Freshman year; 2 hours.)*

AGRONOMY II*a*.—*Field Crops.*—The various grain, fiber, and sugar crops with respect to their habits of growth, soil adaptations, fertilizer requirements, general methods of tillage and harvesting, and the most profitable forms in which to market them. Special attention will be given to corn, cotton, and sugar cane. *(Sophomore year; class 2 hours, laboratory 2 hours; credit 3 hours.)*

AGRONOMY III*b*.—*Forage Crops; Legumes, Grasses, etc.*—Legumes, grasses, and miscellaneous forage plants, and their adaptability to the various Florida soils, seeding and cultural methods, harvesting and storing, composition and use, illustrated by specimens brought before the students and by field observations. *(Sophomore year; 3 hours.)*

AGRONOMY IV*b*.—*Fertilizers.*—The nature, composition, and sources of fertilizers and their reaction on soils and crops.

Fertilizer formulas and home-mixing. The making and economical use of farm manures. Fertilizer requirements for various crops, etc. *(Junior year; 3 hours.)*

AGRONOMY V.—*Soil Technology.*—The physical, chemical, and biological properties of soil as related to soil fertility and crop production; soil management and drainage. *(Senior year; recitations 2 hours, laboratory 2 hours; credit 3 hours.)*

AGRONOMY VI*a.*—*Farm Management.*—The factors of production; systems of farming, their distribution and adaptation; farm accounts; problems of labor, machinery, storing, marketing, laying out farms, rotation systems. *(Senior year; 3 hours.)*

AGRONOMY VII*b.* — *Advanced Course in Farm Management.*—Special stress given to laying out and locating various buildings, lots, fields, and crops; cropping systems; surveys made in other states. *(Senior year; 3 hours.)*

AGRONOMY VIII*b.*— *Soil Management.*— Factors in crop production, loss of plant food, methods and results obtained by investigators; laboratory and field experiments. *(Elective for Seniors; 3 hours.)*

AGRONOMY IX*b.*—*Rural Law.*—Classification of property, boundaries, fences, stock laws, rents, contracts, deeds, mortgages, taxes, laws governing shipping, etc. *(Elective, Junior or Senior year; 2 hours.)*

AGRONOMY X*a* or *b.*—*Special Courses.*—Special Courses will be offered at the option of the instructors, on approval of the Dean.

AGRICULTURAL ENGINEERING

Assistant Professor Rogers

AGRICULTURAL ENGINEERING I*a.*—*Farm Machinery.*—The construction, selection, and operation of seeding, tilling, and harvesting machinery. *(Freshman year; recitations 2 hours, laboratory 4 hours.)*

AGRICULTURAL ENGINEERING II*b.*— *Farm Motors.*— The sources of power on the farm: windmill, gasoline and kerosene engines; special attention given to farm tractors. *(Junior or Senior year; recitations 2 hours, laboratory 2 hours.)*

AGRICULTURAL ENGINEERING III*a.*—*Drainage and Irrigation.*—Farm surveying, drainage and irrigation systems; practice in making surveys and in designing systems. *(Senior year; recitations 2 hours, laboratory 2 hours.)*

AGRICULTURAL ENGINEERING IV*b*. — *Farm Buildings.* — Ventilation, sanitation, construction, cost, management, laboratory work in designing and drawing plans. *(Junior or Senior year; recitations 2 hours, laboratory 2 hours.)*

AGRICULTURAL EDUCATION

Professor Turlington Miss Miltimore

AGRICULTURAL EDUCATION I*a*.— *Library Work.*— Instruction in use of card catalog, readers' guides, agricultural indexes, and reference books; practice in collecting and making notes on assigned subjects. *(1 hour.)*

AGRICULTURAL EDUCATION II*b*.— *Agricultural Organizations.*—The organization and proceedings of agricultural societies. *(Freshman year; 1 hour.)*

AGRICULTURAL EDUCATION III*a*.—*Methods of Teaching Agriculture.*—Instruction and practice in methods of presenting agricultural subjects; materials and laboratory usage. *(1 hour.)*

AGRICULTURAL EDUCATION IV*b*.—*History of Agriculture.*— Lectures and library work on the history and development of agricultural education. *(2 hours.)*

ANIMAL HUSBANDRY AND DAIRYING

Professor Willoughby Professor Sanborn

ANIMAL HUSBANDRY

The livestock industry holds an important place in Florida, as it commands a steady income and is a valuable aid in maintaining soil fertility. The basic principles taught in the College are applicable to all parts of America, altho special instruction is given for Florida conditions.

ANIMAL HUSBANDRY A*a*.—*Elements of Animal Husbandry.* —History, types and breeds of farm animals, with elementary principles of breeding and selection. *(Short courses, Vocational and Practice High School; 3 hours.)*

ANIMAL HUSBANDRY B*b*.—*Live Stock Feeding and Management.*—Relation of soils, plants and animals; methods of feeding and handling different classes of farm animals. *(Short Courses, Vocational, and Practice High School; 3 hours.)*

ANIMAL HUSBANDRY I*b*.—*Types and Breeds of Animals.*— Types and classes of farm animals; leading breeds of horses, mules, cattle, sheep, and swine; practice in score-card and

comparative judging. Animals owned by the College will be studied, and occasional trips made to nearby stock farms and stables. *(Freshman year; 4 hours.)*

ANIMAL HUSBANDRY II*a*.—*Animal Feeding*.—Composition of plants and animals; digestion and assimilation; feeding standards and balanced rations. Feeding methods for different classes of animals. *(Sophomore year; 2 hours.)*

ANIMAL HUSBANDRY III*b*.—*Animal Breeding*.—Principles underlying the breeding of animals, including heredity, variation, selection, environment; foundation and management of a breeding business. *(Sophomore year; 2 hours.)*

ANIMAL HUSBANDRY IV*a*.— *Beef Production*.— Practical methods in beef production: selection, feeding, and management of beef cattle; finishing and marketing; slaughtering and packing. Consideration of same subjects in mutton production. *(Sophomore or Junior year; 2 hours.)*

ANIMAL HUSBANDRY V*b*.— *Swine Production*.— Location and equipment of a hog farm, breeds of swine suited to the South; growing feeds for grazing and fattening; feeding and managing the herd; marketing and slaughtering, curing meats on the farm. *(Sophomore or Junior year; 2 hours.)*

ANIMAL HUSBANDRY VI*a*.— *Animal Conformation*.— Detailed study and measurement of market types and classes of animals; advanced stock-judging and show-ring practice at county and state fairs. *(Elective; 2 hours.)*

ANIMAL HUSBANDRY VII*b*.— *Breeding History and Seminar*.—Advanced work in history of breeds, pedigrees and registration methods; historical review of the livestock industry and its relation to agriculture. *(Elective; 3 hours.)*

ANIMAL HUSBANDRY VIII*b*.—*Animal Nutrition*.— Review of latest books on nutrition of animals, by Armsby, Henry, Kellner, and others. *(Elective; 2 hours.)*

DAIRYING

DAIRYING I*a*.—*Dairy Products*.— Secretion, composition, properties of milk; testing milk and its products; methods of creaming; use of cream separators; manufacturing butter, cheese, etc. *(Sophomore or Junior year; 3 hours.)*

DAIRYING II*b*.—*Dairy Farming*.— Locations suitable for dairy farming; construction of sanitary barns, dairy houses, silos; selection of breeds, feeding and management of herd,

testing and herd records; pastures, soiling crops, silage; marketing products. *(Sophomore or Junior year; 3 hours.)*

DAIRYING III*b*.—*Milk Inspection.*—Methods of producing sanitary milk, operation of county and city milk plants; state and municipal dairy laws; work of city milk inspector, score-card practice with dairy herds and milk depots. *(Elective; 3 hours.)*

DAIRYING IV.—*Dairy Manufactures.*—Advanced work in making butter, cottage and Cheddar cheese, fermented milks, ice-cream and other market products; creamery management and accounting. *(Elective; 2 hours.)* Omitted in 1921-1922.

POULTRY HUSBANDRY

POULTRY HUSBANDRY I*b*. — *Farm Poultry.* — Value of poultry industry, the leading types and breeds of poultry, location and construction of poultry houses, feeding and management for egg and meat production, rearing of chicks on the farm. *(Sophomore year; Vocational and Short Courses; 3 hours.)*

POULTRY HUSBANDRY II*b*.— *Incubation and Brooding.*— Natural and artificial incubation, development of chick in the egg, artificial brooding and natural raising of chicks, feeding and management to feathering stage; use of modern apparatus and appliances of different sizes and types. *(Sophomore or Junior year; 2 hours.)*

POULTRY HUSBANDRY III*b*.—*Poultry Management.*—Feeding for growth, egg and meat production; management and care of the flock, keeping records and accounts, marketing and storing products, disinfection and treatment of diseases and parasites. *(Sophomore or Junior year; 2 hours.)*

POULTRY HUSBANDRY IV*b*.—*Poultry Breeding and Judging.* —Principles underlying the handling of breeding pens and flocks, trap-nest records, selection and mating for color and other purposes; methods of preparing birds for show, rules of exhibitions, practice in judging, with standard of perfection. *(Junior or Senior year; 2 hours.)*

VETERINARY SCIENCE

Professor Shealy

The aim of this department is to provide training which will enable students to detect diseases more readily and to understand their seriousness, and to become familiar with

simple methods of treatment and means of eradication and prevention. All students interested in stockraising will find this training helpful. The courses also form a good foundation for students wishing to enter the profession of veterinary medicine.

VETERINARY SCIENCE I*b*.—*Veterinary Elements*.—Elementary anatomy and physiology of the domestic animals; causes and symptoms of common diseases of animals; methods of prevention, disinfection, and sanitation. Simple surgical operations, occasional clinics. *(For groups other than Animal Husbandry; Sophomore year; 3 hours.)*

VETERINARY SCIENCE II. — *Veterinary Anatomy and Physiology*.—Anatomy, including the skeleton, articulations, muscles, large blood-vessels and nerves, and internal organs; physiology, including circulation, respiration, digestion, and absorption; also the skin, the body excretions, the nervous system, and the special senses. *(Junior year; 4 hours.)*

VETERINARY SCIENCE III.—*Diseases of Farm Animals*.—Causes, symptoms, treatment, and prevention of common diseases of farm animals. Special attention given to contagious diseases, such as tuberculosis, hog cholera, contagious abortion, Texas fever, and rabies; sanitation following contagious diseases; technic of holding and study of findings of post-mortems. Clinic of at least 2 hours will be held one afternoon of each week. The use of serum and virus in the control of hog cholera will be demonstrated. *(Prerequisite: Veterinary Science II; Senior year; 3 hours.)*

VETERINARY SCIENCE IV*a*.—*Veterinary Hygiene and Farm Sanitation*.—Wholesome water, sources of water, impurities found in water; wholesome food, diseases caused by unwholesome food; pure air, impurities of air and diseases produced by them, ventilation, disposal of excreta; disposal of carcasses; disinfection, agents employed; sanitation following infectious diseases; hygiene of breeding animals. *(Elective; 2 hours.)*

VETERINARY SCIENCE V*b*.—*Parasitology*.—Common parasitic diseases of animals; life-history of parasites producing disease; symptoms of diseases, means of eradication and control of parasites. Lantern slides and natural specimens are used. *(Elective; 2 hours.)*

AGRICULTURAL JOURNALISM

Assistant Professor Stoutamire

AGRICULTURAL JOURNALISM I.—Principles of agricultural journalism; practical work in gathering and writing news, reading copy, editing. Students prepare copy for agricultural press. *(Junior or Senior year; 3 hours.)*

HORTICULTURE AND ECONOMIC BOTANY

Professor Floyd Assistant Professor Cody

In a subtropical climate unusual opportunities for the study of horticulture are presented. The wonderful variety of plants, the peculiar problems involved in their growth and development, and the accomplishments of those who have given time and labor to the solution of those problems, offer inviting fields for study and experiment. Both the practical and the esthetic tendencies may be cultivated.

The department with its orchard, garden, laboratory, and library, offers fine opportunity for instruction, experiment, and research.

HORTICULTURE I.—*Plant Propagation.*—Propagation by means of division, cutting, layering, budding, and grafting; seed selection, storing, and testing; and the fundamental physiological processes; practice in propagating common fruits, flowers, and shrubs. *(Freshman year; 2 hours.)*

HORTICULTURE II.—*Trucking.*—Vegetables adapted to Florida, seasons in which they are grown, cultural methods, fertilizing, irrigating, packing, and marketing. *(Sophomore year; 2 hours.)*

HORTICULTURE III*b*.—*Floriculture.*—The growing of flowers upon the home grounds, pot plants, greenhouse crops and their cultural requirements, including ventilation, watering, and heating.. *(Sophomore year; 2 hours.)*

HORTICULTURE IV*a*.—*Citrus Culture.*—Soils suitable for citrus groves, their preparation, planting, cultivation, fertilization, selection of varieties, and the use of cover crops. *(Junior year; 3 hours.)*

HORTICULTURE V*b*.—*Citrus Harvesting, Marketing and Judging.*—Methods of picking, handling, washing, drying, packing, and shipping citrus fruits; identification of the leading commercial varieties and score-card judging. *(Junior year; 2 hours.)*

HORTICULTURE VI*a*.—*Insects and Diseases of Citrus Fruits.*—Injurious insects and important physiological and fungus diseases and their treatment. *(Prerequisite or corequisite, IVa; Senior year; 3 hours.)*

HORTICULTURE VII*a*.—*Deciduous and Subtropical Fruits.*—Peaches, pears, persimmons, grapes, pecans, guavas, avocados, mangoes, etc.; varieties adapted to the State, their planting, cultivation, diseases, insect enemies. *(Junior year; 3 hours.)*

HORTICULTURE VIII*b*.—*Plant Breeding.*—Cross pollination and hybridization of plants, improvement by selection, breeding for special qualities, methods of successful breeders; field work. *(Prerequisites: Ia and Botany I; Junior year; 3 hours.)*

HORTICULTURE IX*b*.—*Landscape Gardening.*—The principles of landscape gardening, suitable plants, improvement of home, school, and public grounds. *(Senior year; 2 hours.)*

HORTICULTURE X*a*.—*General Forestry.*—The principles of forestry, forest cropping, protecting the home wood lot, use of Florida woods, varieties of timber trees, and the influences of the forests on other industries of the State. *(Junior or Senior year; 3 hours.)*

HORTICULTURE XI*b*.—*Forest Mensuration.*—The determination of the age and volume of trees and stands. Estimating standing timber by the hysometer, dendrometer, and other instruments. Principles of volume and yield; tables and log rules. *(Prerequisite: IXa; Junior or senior year; 3 hours.)*

HORTICULTURE XII*a*.—*The Evolution of Cultivated Plants.*—Evolution as applied to the modification of cultivated plants, particularly the fruits. *(Prerequisite: VIIIb; Senior year; 2 hours.)*

BOTANY I*b*.—*Economic Botany.*—The relationship, habits, characteristics, and environmental relations of the important crop plants, with laboratory study of important types. *(Sophomore year; recitations 2 hours, laboratory 2 hours.)*

BOTANY II*a*.—*Grasses and Weeds.*—The relationship, characteristics, and economic importance of grasses and weeds. Methods of introduction of weeds, and how to combat them; a study of their seeds, so that they may be recognized. *(Junior year; recitations 2 hours, laboratory 2 hours.)*

BOTANY III*b*.—*Morphology of Thallophytes.*—Designed for students desiring advanced work on algae and fungi—with reference to classification, differentiation, and morphology.

Fresh-water algae will be studied from living specimens in the laboratory, and students will make permanent microscopic slides of the species studied. Many of the marine algae will be studied from preserved specimens. The study of the fungi prepares for Plant Pathology. The field work will consist of collecting and identifying the fungus flora of the vicinity. *(Junior year; recitation 1 hour, laboratory 4 hours.)*

BOTANY IV*a*.—*Morphology of the Higher Plants*.—A study of the Bryophytes, Pteridophytes, and Spermatophytes, with reference to classification, morphology, and differentiation. In the field and in the laboratory the student will learn to recognize all the common liverworts, mosses, ferns, fern allies and conifers, and the more important groups of the Monocotyledone and Dicotyledons, especially those of economic importance. *(Senior year; recitation 1 hour, laboratory 4 hours.)*

OTHER DEPARTMENTS

Descriptions of other subjects that may be taken by students in the College of Agriculture can be found by reference to the Index.

MIDDLE COURSE IN AGRICULTURE

For those who cannot meet the requirements for entrance to the Freshman class, or who may not wish to pursue the Four-Year Course and yet desire training in agriculture, a two-year curriculum is offered. This is not designed to supplant or be a substitute for the regular curriculum outlined above.

ENTRANCE REQUIREMENTS.—To be admitted, students must be at least sixteen years of age. The scholastic requirements, which are equivalent to the work completed in the tenth grade or Junior high schools, are:

Chemistry	1 unit
English	2 units
Mathematics	2 units
History	1 unit
Elective	2 units
	8 units

TITLE.—The title of Graduate in Farming (G.F.) is conferred upon students who satisfy the entrance requirements and complete the Middle Course.

CERTIFICATE.—Those unable to satisfy the entrance requirements or not caring to take all the required subjects of

the Middle Course, may take a two-year course, made up of such subjects as they are prepared for, and will be awarded a certificate for the work done.

MIDDLE COURSE

Leading to the Title of Graduate in Farming

First Year

Names of Courses	Nature of Work	*Hours per Week	
Agricultural Engineering I	Farm Machinery	4	0
Agronomy I	Elements of Agronomy	2	2
Animal Husbandry A*a*	Elements of Animal Husbandry	3	0
Animal Husbandry B*b*	Live Stock Feeding	0	3
Biology I*a*	General Biology	4	0
Biology II*b*	General Botany	0	4
Horticulture I	Plant Propagation	2	2
Elective		2	6
†Military Science I		1	1
		18	18

Second Year

Agronomy II	Field Crops	3	0
Agronomy III	Forage Crops and Grasses	0	3
Agronomy IV	Fertilizers	0	3
Biology VI	Economic Zoology	3	3
Horticulture II	Trucking	2	2
Elective		9	6
†Military Science II		1	1
		18	18

*The first column gives the hours per week for the first semester, the second column the hours per week for the second semester.
†In addition, 2 credit hours for drill will be granted.

Elective Studies—Middle Course

Names of Courses	Nature of Work	Hours per Week
(First Semester)		
Agricultural Engineering III	Drainage and Irrigation	3
Agronomy V	Soil Technology	3
Agronomy VI	Farm Management	3
Animal Husbandry II	Animal Feeding	2
Animal Husbandry IV	Beef Production	2
Biology XI*a*	General Bacteriology	3
Chemistry I	General Chemistry	5
Dairying I	Dairy Products	2
Horticulture IV	Citrus Culture	3
Horticulture VI	Insects and Diseases of Citrus Fruits	3
Horticulture VII	Deciduous and Subtropical Fruits	3
Horticulture X	Forestry	3
Veterinary Science II	Veterinary Anatomy and Physiology	4
Veterinary Science III	Diseases of Animals	3
Veterinary Science IV	Hygiene and Sanitation	2
(Second Semester)		
Agric'l Engineering II	Farm Motors	3
Agric'l Engineering IV	Farm Buildings	3
Agricultural Journalism		3
Agronomy IV	Fertilizers	3
Agronomy V	Soil Technology	3
Agronomy VII	Farm Management	3
Agronomy IX	Rural Law	2
Animal Husbandry III	Animal Breeding	2
Animal Husbandry V	Swine Production	2
Biology X	Plant Pathology	3
Biology XII*b*	Agricultural Bacteriology	3
Chemistry I	General Chemistry	5
Horticulture III	Floriculture	2
Horticulture V	Citrus Harvesting and Marketing	2
Horticulture VIII	Plant Breeding	2
Horticulture IX	Landscape Gardening	2
Poultry Husbandry I	Farm Poultry	3
Poultry Husbandry II	Incubation and Brooding	2
Poultry Husbandry III	Poultry Management	2
Poultry Husbandry IV	Poultry Breeding and Judging	2
Veterinary Science I	Veterinary Elements	3
Veterinary Science II	Veterinary Anatomy and Physiology	4
Veterinary Science III	Diseases of Animals	3

Note—This curriculum may, with the approval of the Dean and the consent of the instructors, be altered to suit the needs of individual students. Students shall choose from the elective studies, from other courses, or from the Practice High School of the Teachers College, a sufficient number to make a total of not less than eighteen nor more than twenty-three hours per week. All choice of electives must, furthermore, be submitted to the Dean.

ONE-YEAR COURSE IN AGRICULTURE

This course will meet the needs of those who can spend only one year at school. The only requirement for admission is a knowledge of the common-school branches. Certificates will be granted to those who complete the work.

Names of Courses	Nature of Work	Hours per Week
(First Semester)		
Agricultural Education I	Library Work	1
Agricultural Engineering I	Farm Machinery	4
Agric'l Engineering III	Drainage and Irrigation	3
Agronomy A	Elements of Agronomy	3
Agronomy I	Elementary Soils	2
Agronomy II	Field Crops	3
Animal Husbandry A	Elements of Animal Husbandry	3
Animal Husbandry II	Animal Feeding	2
Animal Husbandry IV	Beef Production	2
Botany II	Grasses and Weeds	3
Dairying I	Dairy Products	3
Horticulture I	Plant Propagation	2
Horticulture II	Trucking	2
Horticulture IV	Citrus Culture	3
Horticulture VI	Insects and Diseases of Citrus Fruits	3
Horticulture VII	Deciduous and Subtropical Fruits	3
*Military Scince I		1
Veterinary Science II	Veterinary Anatomy and Physiology	4

Note—Students shall select not less than eighteen nor more than twenty-three hours per week, except on approval of the Dean, to whom all choice of studies must be submitted.

(Second Semester)		
Agricultural Education II	Agricultural Organizations	1
Agricultural Engineering II	Farm Motors	3
Agronomy B	Fertilizers	3
Agronomy I	Elementary Crops	2
Agronomy III	Forage Crops and Grasses	3
Agronomy IV	Fertilizers	3
Agric'l Engineering IV	Farm Buildings	3
Animal Husbandry I	Types and Breeds of Animals	4
Animal Husbandry III	Animal Breeding	3
Animal Husbandry V	Swine Production	2
Botany I	Economic Botany	3
Horticulture A	Elements of Horticulture	3
Horticulture I	Plant Propagation	2
Horticulture II	Trucking	2
Horticulture V	Citrus Harvesting, Markets, Judging	2
*Military Science I		1
Poultry Husbandry I	Farm Poultry	3
Poultry Husbandry II	Incubation and Brooding	3
Poultry Husbandry III	Poultry Management	3
Veterinary Science I	Veterinary Elements	3
Veterinary Science II	Veterinary Anatomy and Physiology	4

FOUR-MONTH COURSES IN AGRICULTURE

The work of each semester of the One-Year Course outlined above has been so planned as to form of itself a well rounded course of study which can be pursued to advantage by those unable to spend more than four months at the Uni-

*In addition, 2 credit hours will be granted for drill, attendance upon which is required.

versity. Each of these Four-Month Short Courses, one of which begins on September 20, 1921, and the other on February 7, 1922, should appeal to farmers who wish to increase their productive power, to young men who expect to become farmers, and to those who are turning from other lines of work in order to obtain the advantages of country life.

Military Drill is not required of those who take one or both of these courses, but it may be elected.

TEN-DAY COURSES FOR FARMERS

Beginning January 3, 1922; ending January 13, 1922.

The Farmers' Ten-Day Courses are especially suited to the needs of the following classes: Farmers of all ages who recognize their need for some training in scientific agriculture in order to render more effective the practical knowledge they have already gained; young men who are compelled to drop out of school and yet desire to devote a short time to special preparation for work on the farm; city students who wish to fit themselves for farm life; colonists who wish information regarding Florida conditions and methods.

The laboratory equipment, the purebred livestock, and the farms will be available for instruction; the Agricultural Experiment Station will afford opportunity for observation and inquiry. Care has been taken to meet the needs of practical farmers. The courses will consist of lectures, laboratory work, and field observations and demonstrations in general field crops, soils, vegetable gardening, citrus, animal husbandry, dairying, poultry, veterinary science, bee culture, and agricultural engineering.

There are no age limits and no educational requirements for admission. No tuition fee is charged.

EXPENSES.—The necessary expenses for room and board will approximate $15.00.

CORRESPONDENCE COURSES

Correspondence Courses in Agriculture are offered under the General Extension Division. See page 166.

AGRICULTURAL MEETINGS

A large number of people interested in agriculture meet annually at the University. These find excellent accommodations and facilities better for their purposes than anywhere

else in the State. Laboratories, classrooms, and exhibits, as well as the growing crops, barns, and other equipment, are placed freely at their service.

The following meetings were held during the past year:

1. Tenth Annual Citrus Seminar, October 5-6.
2. Live-Stock Round Up, October 7-8.
3. County Demonstration Agents, September 6-11.
4. Boys' Short Course in Agriculture, December 6-11.

AGRICULTURAL EXPERIMENT STATION

WILMON NEWELL, *Director*

STAFF.—Wilmon Newell, A. H. Beyer, O. F. Burger, R. W. Ruprecht, R. Stoutamire, J. B. Thompson, J. E. Turlington, G. Umlauf, T. Van Hyning, J. R. Watson.

AIM AND SCOPE.—Agricultural experiment stations are institutions, founded by Congressional act, the purpose of which is to acquire and diffuse agricultural knowledge. From the enacting clause it is evident that Congress intended to establish in connection with every college and university receiving the benefits of the original "Land-Grant Act" an institution for purely investigational work.

The Florida Agricultural Experiment Station was founded in 1887 and has continued without interruption. Inasmuch as its funds are obtained from Federal sources, it must comply with the Federal law: Its income must be used for acquiring new and important knowledge in regard to crops and soils and no part can be expended, directly or indirectly, for teaching purposes or for holding Farmers' Institutes, and only five per cent. for building or making repairs. In order to receive the benefits of the Adams fund, the Station must, before any money is spent in investigation, submit plans for proposed experiments to the U. S. Department of Agriculture for approval.

ADVANTAGES OF LOCATION.—The advantages of having the Agricultural Experiment Station at the University are obvious. At frequent intervals the investigators deliver popular and technical lectures, either to the student-body as a whole or to special clubs and local organizations. As the fields and orchards of the Station are used solely for experimental purposes and as its laboratories are planned and conducted for research work, they contribute to the opportunities

of the students for studying methods of scientific investigation. Some of those with special aptitude have an opportunity of assisting the specialists in charge.

Minor positions, such as those of laboratory assistant, are occasionally open and, whenever practicable, are given to graduates of the University. Such assistants are paid a small salary for half of their time and during the other half are free to take studies leading to higher degrees.

BUILDING.—See page 22.

LINES OF INVESTIGATION.—The lines of investigation carried on fall naturally into several departments: Horticulture, including the introduction, breeding, and propagation of plants; Animal Industry, including the study of feed crops, the effect of feeding certain crops to cattle and hogs, and the growing of feed and forage crops; Agronomy, including the breeding of cotton, corn, and other farm crops; Plant Pathology, including the study of plant diseases produced by fungi and bacteria; Chemistry, including the study of fertilizers and soils, especially as to their effects on plants; Entomology, including the study of insecticides and insects and their parasites. The work of the Station is, however, not sharply divided among these different departments. The Staff formulate what are known as projects, the work of which is continued regardless as to whether its ramifications take it into one or another department, and not infrequently two or more departments are engaged in the solution of the same project —in other words, the work is limited only by the abilities of the Staff and the resources of the institution.

PROJECTS.—Some of the more important projects are:

1. The study of soils and fertilizers in their relation to plant growth and development.
2. The study of certain citrus diseases: Gumming, Melanose, Anthracnose, Blight, and Stem-End Decay.
3. The study of vegetable diseases: cantaloupe blight, bacterial diseases of cucumbers and other vegetables, and seed-bed diseases affecting Lettuce, Celery, Eggplant, and Tomatoes.
4. The study of the Pineapple wilts.
5. The study of Velvet-Bean caterpillar.
6. The control of Root-Knot.
7. The control of Camphor and other thrips and of Scale Insects.
8. Studies in the effect upon citrus trees of different qualities and combinations of nutrient elements.
9. The trying out of different forage crops for all kinds of livestock.
10. Experiments with different kinds of silage with a view to determining the best for the use of the Florida stock raiser.

11. Experiments with the dairy herd. Studying the value of velvet beans, peanut meal and cottonseed meal for milk production.
12. Comparison of the most economical rations for pork production.
13. Studying the effect of peanut meal on the quality of pork.
14. Studying the effect of velvet beans as a feed for brood sows.
15. Value of velvet beans and peanut meal for beef production.
16. Studying the fertilizers for the maximum yield of Japanese cane.
17. Cooperative experiments with farmers in various sections of the State to ascertain the value of certain new forage crops.
18. Testing the native and extensively introduced wild grasses to determine their possible value as forage.
19. Study of diseases and insects of truck crops.

PUBLICATIONS.—The publications fall into three classes: Bulletins, Press Bulletins, and Annual Reports. The Bulletins contain more or less complete results of some particular investigation. At least four are issued annually; one hundred and fifty-eight have appeared. The Press Bulletins are prepared in order to bring to the citizens of Florida information connected with the investigations that are being carried on, before all the work necessary for the publishing of a Bulletin has been completed. They are issued at short intervals, three hundred and twenty-three having already appeared. The Annual Reports contain a brief statement of the work done, as well as of the expenditure of funds. Twenty-nine have been published.

All of these publications are distributed free upon request.

AGRICULTURAL EXTENSION DIVISION

WILMON NEWELL, *Director*

STAFF.—A. With headquarters at Gainesville: Wilmon Newell, A. P. Spencer, C. K. McQuarrie, E. W. Jenkins, H. G. Clayton, R. W. Blacklock, S. W. Hiatt, N. W. Sanborn, J. M. Scott, J. B. Thompson, Ralph Stoutamire.

B. With headquarters at Tallahassee:
Miss S. W. Partridge, *State Agent.*
Miss H. B. Layton, *Assistant State Agent.*
Miss Lonnie I. Landrum, *District Agent.*
Miss Agnes I. Webster, *District Agent.*
Miss May Morse, *Assistant District Agent.*
Miss Minnie Floyd, *Assistant District Agent.*
Miss Estelle Bozeman, *Assistant District Agent.*
A. A. Turner, *Local District Agent (Colored).*

COUNTY AGENTS

County	Name	Address
Alachua	C. D. Gunn	Gainesville
Bay	R. R. Whittington	Panama City
Brevard	K. E. Bragdon	Cocoa
Citrus	R. J. Dorsett	Inverness
Columbia	H. A. McDonald	Lake City
Dade	J. S. Rainey	Miami
DeSoto	J. M. Tillman	Arcadia
Duval	W. L. Watson	Jacksonville
Escambia	J. Lee Smith	Pensacola
Hernando	Jas. Mountain	Brooksville
Hillsboro	R. T. Kelley	Plant City
Holmes	J. J. Sechrest	Bonifay
Lake	E. F. DeBusk	Tavares
Lee	H. E. Stevens	Ft. Myers
Leon	J. J. Sechrest	Tallahassee
Liberty	A. W. Turner	Bristol
Madison	C. E. Matthews	Madison
Manatee	W. R. Briggs	Bradentown
Marion		
Orange	C. D. Kime	Orlando
Osceola	Leo H. Wilson	Kissimmee
Palm Beach	R. A. Conkling	West Palm Beach
Pasco	F. G. Merrin	Dade City
Polk	Wm. Gomme	Bartow
Putnam	H. R. Tribble	Palatka
St. Lucie	A. Warren	Ft. Pierce
Santa Rosa	John G. Hudson	Milton
Seminole	C. M. Berry	Sanford
Suwanee	D. A. Armstrong	Live Oak
Taylor	L. R. Moore	Perry
Volusia	W. E. Dunaway	DeLand
Walton	J. W. Mathison	DeFuniak Springs

HOME DEMONSTRATION AGENTS

County	Name	Address
Alachua	Miss Irene Randall	Gainesville
Broward	Mrs. A. H. Peay	Ft. Lauderdale
Calhoun	Mrs. Grace F. Warren	Blountstown
Citrus	Mrs. Mary E. Brooks	Inverness
Columbia	Miss Marie Cox	Lake City
Dade	Miss Genevieve Crawford	Miami
" (Ass't)	Mrs. Nellie A. Bush	Goulds
DeSoto	Mrs. Nettie B. Crabill	Arcadia
" (Ass't)	Miss Beulah Pipkin	Wauchula
Duval	Miss Ellen LeNoir	Jacksonville Chamber of Commerce

Escambia	Miss	Margaret Cobb	Pensacola Court House Annex
Gadsden	Miss	Ruby McDavid	Hinson
Hernando	Miss	Ora Herndon	Brooksville
Hillsboro	Miss	Stella M. Wiley	Tampa, City Hall
" (Ass't)	Miss	Virginia Branham	Plant City
Jefferson	Miss	Posey Taylor	Lloyd
Lee	Miss	Margaret Burleigh	Ft. Myers
Leon	Mrs.	Mary S. Russell	Tallahassee 334 St. Augustine St.
Madison	Miss	Edna Smith	Madison
Manatee	Mrs.	Ivie Turnbull	Bradentown
Orange	Mrs.	Nellie W. Taylor	Orlando
Osceola	Miss	Albina Smith	Kissimmee
Palm Beach			
Pasco	Mrs.	Harriet Ticknor	Dade City
Pinellas	Miss	Isabelle Thursby	Clearwater
Polk	Miss	Lois Godbey	Bartow
Putnam	Miss	Floresa Sipprell	Palatka
St. Johns	Miss	Anna E. Heist	St. Augustine
Santa Rosa	Mrs.	Winnie Warren McEwen	Milton
Suwanee	Miss	Alice Dorsett	Branford
Taylor	Miss	Pearl LaFitte	Perry

COOPERATIVE EXTENSION WORK

The Agricultural Extension Division, having in view the welfare of the farm family as a whole, supports a system of practical education. It teaches the results of scientific experiments in farm crops and livestock, in orchards and gardens, as well as gives practical information gained by experience. It offers farm women instruction in home economics—practical instruction in the home or at a community center; scientific instruction thru special courses at the State College for Women. It trains the boys and girls of farm homes thru corn, pig, canning, and preserving clubs and thru short courses at the University or the State College for Women.

A synopsis of Cooperative Demonstration work includes:

(a) Demonstration Agents:
  (1) Schools for Agents.
  (2) Group Meetings.

(b) Boys' Agricultural Clubs:
  (1) Corn Clubs.
  (2) Pig Clubs.
  (3) Peanut Clubs.
  (4) Calf Clubs.
  (5) Citrus Clubs.
  (6) Bee Clubs.

(c) Home Demonstration work:
  (1) Girls' Canning Clubs.
  (2) Girls' Poultry Clubs.
  (3) Home Demonstration Clubs.
  (4) Home Dairying.
  (5) Club Contests.
(d) Meetings:
  (1) Farmers' and Growers' State Meetings.
  (2) Women's State Meetings.
  (3) County Agents' Meetings.
  (4) Home Demonstration Agents' Meetings.
  (5) Boys' State Meetings.
  (6) Girls' State Meetings.
  (7) County Meetings.
(e) Cooperation with Bureaus of U. S. Dept. of Agriculture:
  (1) Hog-Cholera Educational work.
  (2) Beef and Mutton Production.
  (3) Poultry Production.
  (4) Forage Crops.
(f) Farm and Home-Makers Clubs:
  (1) Club work for Colored Boys and Girls.
  (2) Demonstration work for Colored Farmers.
  (3) Demonstration work in Canning and Gardening Clubs for Colored Girls and Women.

SMITH-LEVER ACT.—In accordance with the terms of the Smith-Lever Act, which became effective on July 1, 1914, Agricultural Extension Work is carried on cooperatively by the U. S. Department of Agriculture and the State of Florida. The Purpose of the Act may be seen from the following quotation:

"That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstration in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such a manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges receiving the benefits of this act."

In addition to this, in 1919 Congress passed the Smith-Lever Supplementary Act appropriating an additional sum, to be used principally for the employment of County Cooperative and Home Demonstration Agents.

By the terms of the Smith-Lever Act the College of Agriculture receives $10,000 a year, and an additional sum which increases annually provided that the State appropriates an equal amount. The Legislature has enacted laws enabling the State to secure the benefits of both the original Smith-Lever and the Supplementary Act, the total amount of State and Federal funds consequently available for the fiscal year ending June 30, 1921, being $93,249.11.

The College is also permitted by the above-mentioned legis-

lation to enter into agreement with the various bureaus of the U. S. Department of Agriculture, whereby the Department provides specialists in livestock, dairying, fruit culture, trucking, and in home economics, who, working under the Director of Extension Work and with County and Home Demonstration Agents, thus coordinate the activities of the Bureaus with those of the Agricultural Extension Division of the University.

ORGANIZATION.—The organization for Florida consists of:

The *Director*, the chief executive in shaping and directing policies and in arranging cooperation with other agencies.

The *Vice-Director*, who supervises the work carried on at headquarters and aids in directing that done in the field. He is charged with the direction of cooperative specialists.

The *State Agent*, has direct supervision of the County Agents. His duties are outlined by the Chief of the Farmers' Cooperative Work, Washington, D. C., and the Director of the Agricultural Extension Division.

The *State Home Demonstration Agent*, having general supervision of the Home Demonstration Work.

District Agents, who visit regularly the County and Home Demonstration Agents, advising them and planning their work. The State is divided into three districts: Central and East Florida, North and West Florida, and South Florida. The County Home Demonstration work is supervised by two District Agents, acting under the State Agent.

Boys' Agricultural Club Agents, in general charge of the Corn, Pig, Calf, and other Clubs organized by County Agents.

The *Poultry Club Agent*, who directs the Woman's and Girls' Poultry Clubs organized by County Home Demonstration Agents.

The *Home Dairying Agent*, who endeavors to stimulate a greater production of sanitary milk and good butter and to teach the proper dietary use of dairy products.

Specialists from the Bureaus of the U. S. Department of Agriculture, assigned to work with the Extension Division. They are now engaged in studying the most important agricultural problems that confront farmers.

County and Home Demonstration Agents, who visit farms and homes to enlist cooperation and to help in carrying out better methods of farming and home economics, to direct demonstration work in crops and livestock and home economics,

and to organize Farmers' Cooperative Associations and Rural Clubs. Each County Agent has a centrally located office, usually at the county seat, where bulletins, farm journals, and farm records are kept and where he spends one day in each week for consultations.

Counties desiring to cooperate are required to defray a part of the expenses due to the employment of County Agents —the maximum appropriation to a county being $600 for a County Demonstration Agent and $500 for a Home Demonstration Agent.

SCHOOLS FOR DEMONSTRATION AGENTS. — The County Agents are assembled annually for instruction and conference at the University, the Home Agents at the State College for Women. The programs consist of lectures and demonstrations by members of the Staffs of the College of Agriculture, the Experiment Station, and of the Extension Division and speakers from other states and from the U. S. Department of Agriculture.

GROUP MEETINGS.—County Agents are assembled in groups of five or six on well-managed farms to study the best practices and to secure information from the managers.

BOYS' AGRICULTURAL CLUBS

Agricultural clubs are organized among the boys on the farms for the purpose of teaching them by practical demonstrations better methods of farming. In 1919 there were clubs in 50 counties, with a total membership of 3,100.

In order to touch the problems of the different sections, the following clubs are conducted: corn, peanut, sweet-potato, sugar-cane, pig, beef-calf, and dairy-calf.

Corn Clubs are organized in 49 counties, with a membership of 1,098. The average yield of corn per acre in 1919 was 35.7 bushels, costing 48 cents a bushel to produce.

Peanut Clubs are organized in 37 counties, with a membership of 173. Altho many boys let the hogs harvest the crop and therefore do not know the exact yield, some few report 50 or more bushels per acre.

Sweet-Potato Clubs were first organized in 1919. They are, especially in Santa Rosa and Manatee counties, assisting materially in increasing yields and standardizing marketable varieties.

Sugar-Cane Clubs were intended mainly for the southern counties, altho some northern and western counties are also becoming interested in them. Each club member grows one-eighth acre of cane.

Pig Clubs are organized in 49 counties, with a membership of 1,706. Each member raises one or more purebred hogs. The pig-club boys have not only greatly assisted in improving the swine in Florida, but have also been well paid for their efforts. The first few years of their work were necessarily spent in improving the breeding stock; now that blood lines are so much improved, many club members are entering feeding contests.

Beef-Calf Clubs are being conducted in some counties in order to assist in improving the breeds of beef cattle. Each member raises one purebred beef animal. So successful were the boys in 1919 that the work promises soon to become valuable.

Dairy-Calf Clubs are being organized in rural communities as well as in dairy-farming localities. In 1919 about 40 purebred calves were distributed among club boys; other boys are planning soon to join in the work.

MEMBERS.—Any boy between the ages of 10 and 18 years living on or having access to a farm, is eligible to membership. There are no fees, and the members have the assistance of the County and State Boys' Club Agents.

CONTESTS.—Contests between the members in each county are held in the early fall. Each contestant makes an exhibit, or enters his stock, together with a complete report of his work. Valuable prizes are usually awarded.

The State Contest is held at the State Fair in Jacksonville. The best results from each county are shown; and prizes are awarded as in county contests.

BOYS' SHORT COURSE. — Business men and agricultural organizations annually give successful boys from as many counties as possible a free trip to the University to attend the Short Course in Agriculture. This has done much to stimulate greater interest in club work and has caused many boys to enter the College of Agriculture for a four-year course.

HOME DEMONSTRATION WORK

CLUBS.—*Girls' Canning Clubs.*—Girls between the ages of ten and eighteen are eligible for membership. Each member is required, under the supervision of the County Home Demonstration Agent, to grow one-tenth of an acre of vegetables.

Girls' Poultry Clubs.— Successful canning-club girls are organized by the County Home Demonstration Agents into clubs to study poultry raising, procure purebred stock, and to handle and market profitably the products. Special effort is made to teach the advantages of collective selling.

Home Demonstration Clubs take up the general home problems of the farm and community. Dwellings are screened, labor-saving devices installed, and provisions made for a better water supply and sewage disposal. The clubs study, furthermore, the purpose and necessity of recreation and entertainment.

HOME DAIRYING.—Individuals and groups are taught the proper dietary use of dairy products, as well as how to improve and increase the supply.

CONTESTS.—County contests are held, frequently in connection with those of the boys' clubs, at the close of the year's work. The exhibits are judged and record books examined; awards are based on quality, record, and on financial showing. The prizes consist of scholarships to short courses at the Women's College, money, or merchandise. The State contest is held at the State Fair at Jacksonville.

FARMERS' AND GROWERS' MEETINGS

Farmers' and Home Demonstration meetings are held, generally at the request of a resident, in counties having County and Home Demonstration Agents. Speakers are obtained from the State colleges or from other organized agencies working for the development of agriculture. On special occasions, particularly for evening lectures, stereopticon slides and moving picture films are used. Meetings for a definite purpose are always considered the best.

CITRUS SEMINAR-LIVESTOCK ROUNDUP

The Eleventh Annual Citrus Seminar and the Fifth Annual Livestock Roundup were held at the University, October 5, 6, 7, 8. The two were combined, as many fruit growers are also

interested in livestock and general farming. Addresses twenty to forty minutes in length were made on subjects of special interest. The Staffs of the College of Agriculture, Extension Division, and Experiment Station were called upon for lectures on their particular work. Other institutions represented were the U. S. Department of Agriculture, the State Department of Agriculture, the Livestock Sanitary Board. Valuable papers were presented by farmers and growers of Florida.

TRACTOR AND FARM MACHINERY EXHIBITS.—An exhibit representing the output of thirty firms was placed on the University campus for inspection. An interesting feature was the tractor demonstration. The companies making exhibits of spraying machinery, for instructional purposes, sent representatives to operate it.

AGENTS' ANNUAL MEETINGS

The County Agents' Annual Meeting was held, under the direction of the State Agent, at Gainesville, September 6-11 inclusive. The topics of discussion were mainly of a business nature, the conferences and discussions held applying particularly to the Cooperative Demonstration work. The Experiment Station and College Staffs assisted in the program.

The Home Demonstration Agents were assembled at the State College for Women, Tallahassee, for conference and instruction, and an appropriate program was prepared for their benefit. On September eighth they joined the County Agents in a meeting at Gainesville.

As both these meetings are of general interest, the public is always invited to attend.

PUBLICATIONS

No.		Edition
Bulletins		
21.	Florida Pasture and Feed for 100 Hens	11,000
22.	The Silo in Florida	15,450
23.	Addresses—Livestock Roundup	2,500
24.	Addresses—Citrus Seminar	2,500
25.	Boys' Agricultural Club Guide	9,171
26.	Feeding Beef Cattle in Florida	12,150
27.	Peach Growing in Florida	20,640
Circulars		
8.	Twenty-three Poultry Questions and Answers	20,310
9.	Raising Calves	15,000
10.	One Hundred Bushels Corn per Acre	15,237
11.	Important Irish Potato Diseases and How to Control Them	10,100
12.	Tractors in Florida	15,000

Posters
Better Beef Cattle 2,000
Annual Report 2,000
Agricultural News Service, 52 weeks, 425 copies each week.

SPEAKERS AT AGRICULTURAL MEETINGS

From College of Agriculture:

A. A. Murphree, Wilmon Newell, R. W. Blacklock, H. G. Clayton, Miss Minnie Floyd, W. L. Floyd, Miss Lois Godbey, W. Gomme, C. D. Gunn, S. W. Hiatt, E. W. Jenkins, R. T. Kelley, Miss H. B. Layton, C. K. McQuarrie, R. I. Mathews, Miss S. W. Partridge, J. M. Scott, Miss A. Smith, Miss E. Smith, A. P. Spencer, J. E. Turlington, Mrs. G. Warren, Miss W. Warren, C. H. Willoughby.

Partial list of other speakers:

C. K. Allen, Sopchoppy; A. P. Anthony, Jacksonville; Dr. J. M. Baxter, Marianna; E. S. Burleigh, Tavares; Dr. W. F. Blackman, Winter Park; Sister E. Carlotta, St. Augustine; W. D. Carn, Ocala; H. J. Dame, Inverness; Dr. J. G. Dupuis, Lemon City; J. A. Evans, Washington, D. C.; R. L. Goodwin, Fort Pierce; R. E. Hall, Miami; B. L. Hamner, Valrico; K. Hawkins, Washington, D. C.; H. H. Hume, Glen Saint Mary; L. R. Hodges, Jacksonville; Mrs. L. L. Howard, Gainesville; J. E. Ingraham, St. Augustine; Wm. James, Pensacola; Mrs. W. S. Jennings, Jacksonville; W. A. McRae, Tallahassee; Dr. E. M. Nighbert, Jacksonville; Dr. E. C. Pace, Marianna; Karl Robinson, Montverde; L. M. Rhodes, Jacksonville; Capt. R. E. Rose, Tallahassee; Dr. J. H. Ross, Tampa; H. H. Simmons, Jacksonville; J. B. Simonton, Micanopy; R. W. Storrs, DeFuniak Springs; W. M. Traer, Jacksonville; S. W. Westbrook, Pensacola.

COLLEGE OF ENGINEERING

J. R. BENTON, *Dean*

FACULTY.—J. R. Benton, E. C. Beck, A. P. Black, A. Bresth, L. M. Bristol, H. S. Davis, J. M. Farr, B. F. Gaines, U. T. Holmes, T. M. Leigh, P. H. Lucas, W. S. Perry, P. L. Reed, T. M. Simpson, A. J. Strong, E. S. Walker, B. Ward.

GENERAL STATEMENT

AIM AND SCOPE.—It is the aim of the College of Engineering to furnish such training as will be useful to its graduates in the profession of engineering. Its courses of instruction are similar to those of other American engineering schools of college grade; its graduates are prepared to fill such positions as are usually allotted to young engineers.

Scholastic training alone cannot make a competent engineer, any more than it can make a competent physician or lawyer. It can, however, fit a man to enter the profession of engineering; and it is an important element in ultimate success in that profession.

The work of the College is divided among courses of study of the following types: (1) Courses in the sciences fundamental to the practice of engineering, of which mathematics, chemistry, and physics are the most important; (2) courses in various branches of engineering practice in which these sciences are applied, such as structural, steam, or electrical engineering; (3) courses in practical work, such as mechanic arts, drafting, or surveying; and (4) courses contributing primarily to general culture, such as those in English.

BUILDINGS AND EQUIPMENT.—The headquarters and principal building of the College is Engineering Hall, described on page 22. A description of the equipment is to be found on page 28.

Provision is made for shop work in a large wing to Engineering Hall, as well as by temporary use of a separate building. (See page 22.)

Part of the work of the College of Engineering coincides with that of the other colleges of the University; for such work the same classrooms and laboratories are utilized.

ADMISSION.—See pages 42 to 48, inclusive. Beginning with the session of 1921-1922, no students except adult special students will be admitted who would have conditions in any *required* entrance units.

BENTON ENGINEERING SOCIETY.—Weekly meetings of this society are held, at which each member in turn presents a paper on some topic of interest to engineering students. Membership is strongly urged upon every student in the College.

EXPENSES.—See pages 35-37.

CURRICULA AND DEGREES.—Four curricula, each requiring four years, are offered. They lead to the degrees of Bachelor of Science in Civil Engineering (B.S.C.E.), in Electrical Engineering (B.S.E.E.), in Mechanical Engineering (B.S.M.E.), and in Chemical Engineering (B.S.Ch.E.), respectively.

The Freshman year is the same for all engineering students; the Sophomore year for electrical and mechanical engineering students. The work in English, economics, mathematics, mechanics, and physics is the same thruout the curriculum, for all engineering students, and in part coincides with that provided for students in the College of Arts and Sciences. All engineering students take some work in chemistry, drafting, surveying, and shop practice, but the time devoted to these subjects varies in the different curricula.

The degree C.E., Ch.E., E.E., or M.E., may be granted to a graduate of the College upon recommendation of the head of the department in which it is sought, and with the concurrence of the Faculty of the College, provided the candidate submits evidence that he has had, subsequent to graduation, from two to five years of successful and responsible engineering practice. The length of time demanded will depend on the character of the professional experience, and on the average grade which the candidate obtained while an undergraduate, which must be 90 or more in order to obtain the degree in two years. By "responsible" experience is meant work in which the candidate has to use his own initiative, as distinguished from the mere rendering of routine assistance.

The Bachelor degree (B.S.C.E., B.S.Ch.E., B.S.E.E., or B.S.M.E.) indicates merely the completion of a course of study in the theory of engineering; while the later degree (C.E., Ch.E., E.E., or M.E.) indicates demonstrated proficiency in the practice of some branch of engineering. Every student of

engineering should look forward to obtaining one of these degrees eventually.

To obtain one of these degrees application should be made to the Dean of the College not later than April 1st preceding the Commencement at which the degree may be awarded.

ENGINEERING CURRICULUM

(For all Engineering Students)

Names of Courses	Hours per Week					
	1st Semester			*2nd Semester*		
Freshman Year	*	**	†	*	**	†
Descriptive Geometry	2	3	0	2	3	0
Descriptive Geometry Problems	0	0	2	0	0	2
English I	3	6	0	3	6	0
Mathematics I	3	6	0	3	6	0
Mechanical Drawing	0	0	4	0	0	4
Military Science I	1	2	5	1	2	5
Orientation	1	0	0	....	....	....
Physics I	3	4	0	3	4	0
Physics II	0	0	4	0	0	4
Woodworking	0	0	6	0	0	6
	13	21	21	12	21	21

CIVIL ENGINEERING CURRICULUM

Names of Courses	Hours per Week					
	1st Semester			*2nd Semester*		
Sophomore Year	*	**	†	*	**	†
Chemistry I	3	6	4	3	6	4
Mathematics III	3	6	0	3	6	0
Military Science I	1	2	5	1	2	5
Physics III	2	4	2	2	4	2
Surveying I*a* and I*b*	1	2	5	3	4½	6
	10	20	16	12	22½	17
Junior Year						
Economics	2	2	0	....	....	....
Electrical Engineering I*a*	2	4	2	....	....	....
Graphic Statics		....	....	1	1½	3
Highways		....	....	2	3	0
Mathematics IV	2	4	0	2	4	0
Mechanics	4	8	0	3	6	0
Railroads	2	4	2	0	0	6
Strength of Materials		....	....	4	8	0
Surveying II	1	2	3	....	....	....
	13	24	7	12	22½	9

*Hours of recitation or lecture. **Estimated hours necessary for preparation. †Hours of laboratory, shop, field, or drafting-room work.

Senior Year

Contracts and Specifications	2	4	0	....	....	....
English XII	1	2	0	1	2	0
Geology	3	4	0	....	....	....
Hydraulics *a* and *b*	2	4	2	2	4	0
Municipal Engineering	2	2	2	4	6	4
Sociology	2	4	0	....	....	....
Structural Engineering	2	2	3	4	8	6
Testing Laboratory	....	....	....	0	0	2
	14	22	7	11	20	12

ELECTRICAL ENGINEERING CURRICULUM

Names of Courses	Hours per Week					
	1st Semester			*2nd Semester*		
Sophomore Year	*	**	†	*	**	†
Chemistry I	3	6	4	3	6	4
Forge and Foundry	0	0	3	0	0	3
Machine Drawing	0	0	3	0	0	3
Mathematics III	3	6	0	3	6	0
Mechanism	....	....	....	4	4	0
Military Science II	1	2	5	1	2	5
Physics III	2	4	2	2	4	2
Surveying I*a*	1	2	5	....	....	....
	10	20	22	13	22	17

Junior Year

Economics	2	2	0	....	....	....
Electrical Engineering I*a* and I*b*	2	4	2	3	6	6
Electrical Engineering III*a*	1	2	2	....	....	....
Machine Shop I	0	0	6	....	....	....
Mathematics IV	2	4	0	2	4	0
Mechanics	4	8	0	3	6	0
Strength of Materials	....	....	....	4	8	0
	11	20	10	12	24	6

Senior Year

Contracts and Specifications	2	4	0	....	....	....
Electrical Engineering II	2	4	0	3	4	0
Electrical Engineering III*b*	....	....	....	1	2	2
Electrical Engineering IV	....	....	....	0	0	6
English XII	1	2	0	1	2	0
Thermodynamics	3	6	0	3	6	0
Hydraulics	2	4	2	....	....	....
Machine Design	2	4	0	2	4	4
Sociology	2	4	0	....	....	....
Steam Laboratory	....	....	....	0	0	4
	14	28	2	10	18	16

*Hours of recitation or lecture. **Estimated hours necessary for preparation. †Hours of laboratory, shop, field, or drafting-room work.

MECHANICAL ENGINEERING CURRICULUM

Names of Courses	Hours per Week					
	1st Semester			*2nd Semester*		
Sophomore Year	*	**	†	*	**	†
Chemistry I	3	6	4	3	6	4
Forge and Foundry	0	0	3	0	0	3
Machine Drawing	0	0	3	0	0	3
Mathematics III	3	6	0	3	6	0
Mechanism	....	....	....	4	4	0
Military Science II	1	2	5	1	2	5
Physics III	2	4	2	2	4	2
Surveying I*a*	1	2	5	....	....	....
	11	21½	22	12	20½	17
Junior Year						
Chemistry III*e*	1	0	4	1	0	4
Economics	2	2	0	....	....	....
Electrical Engineering I	2	4	2	....	....	....
Graphic Statics I	....	....	....	1	1½	3
Machine Shop I	0	0	6	....	....	....
Mathematics IV	2	4	0	2	4	0
Mechanics	4	8	0	3	6	0
Pattern Making	....	....	....	0	0	6
Strength of Materials	....	....	....	4	8	0
	11	18	12	11	19½	13
Senior Year						
Contracts and Specifications	2	4	0	....	....	....
Electrical Engineering V	....	....	....	0	0	6
English XII	1	2	0	1	2	0
Gas Engines	....	....	....	2	4	0
Thermodynamics	3	6	0	3	6	0
Hydraulics	2	4	2	....	....	....
Machine Design	2	4	0	2	4	4
Machine Shop II	0	0	6	....	....	....
Sociology	2	4	0	....	....	....
Steam Laboratory	....	....	....	0	0	4
Valve Gears	....	....	....	1	2	0
	12	24	8	9	18	14

*Hours of recitation or lecture. **Estimated hours necessary for preparation. †Hours of laboratory, shop, field, or drafting-room work.

CHEMICAL ENGINEERING CURRICULUM

Names of Courses	Hours per Week					
	1st Semester			*2nd Semester*		
Sophomore Year	*	**	†	*	**	†
Chemistry I	3	6	4	3	6	4
Chemistry III*e*	....	....	....	1	0	4
Forge and Foundry	0	0	3	0	0	3
Machine Drawing	0	0	3	0	0	3
Mathematics III	3	6	0	3	6	0
Military Science II	1	2	5	1	2	5
Physics III	2	4	2	2	4	2
Surveying I*a*	1	2	5	....	....	....
	10	20	22	10	18	21
Junior Year						
Chemistry III*e*	1	0	4	....	....	....
Chemistry V	3	6	4	3	6	4
Chemistry VII	0	0	6	0	0	6
Economics	2	2	0	....	....	....
Mathematics IV	2	4	0	2	4	0
Mechanics	4	8	0	3	6	0
Strength of Materials	....	....	....	4	8	0
	11	20	15	12	24	10
Senior Year						
Chemistry VI	3	6	0	3	6	0
Chemistry X	....	....	....	0	0	10
Chemistry XI	3	6	0	3	6	0
Contracts and Specifications	2	4	0	....	....	....
Elective	....	....	....	3	6	0
English XII	1	2	0	1	2	0
Hydraulics	2	4	2	....	....	....
Sociology	2	4	0	....	....	....
	13	26	2	10	20	10

*Hours of recitation or lecture. **Estimated hours necessary for preparation. †Hours of laboratory, shop, field, or drafting-room work.

DEPARTMENTS OF INSTRUCTION

CIVIL ENGINEERING

Professor Reed Assistant Professor Bresth

The courses in this department are designed to give the student a comprehensive grasp of the principles underlying the practice of Civil Engineering, so that on graduation he will be fitted to enter at once upon field or office work in his profession.

The work of instruction is carried on by means of assigned recitations from standard textbooks, combined with laboratory, field, and drawing-room exercises for the purpose of emphasizing the practical side of the subject.

For equipment, see pages 28 and 29.

A cement and concrete laboratory has recently been installed for the testing of cement and concrete. This laboratory is of late design and is a substantial addition to the other laboratory facilities of the department.

There will be found in the general library a considerable literature on all engineering subjects: more exhaustive treatises, as well as the current literature from which the student may keep abreast of up-to-date practice.

SURVEYING I*a*.—Recitations on the use of chain, compass, transit, and level; determination of areas, and instrumental adjustments. Field work in chaining, leveling, compass and transit surveys; and in tests and adjustments of instruments. Drawing-room work in calculations from field notes, and map-drawing. *(Required of all engineering students; first semester; Sophomore year. Recitations, 1 hour per week; field and drawing-room work, 5 hours per week.)*

SURVEYING I*b*.—Recitations on balancing of surveys and calculating of areas; methods of making topographical surveys, including the use of the stadia and plane table; methods of solving other problems in land, topographical, and city surveying in which the principles of higher surveying are not involved. Field work: the making of a complete topographical survey, and the practical application of surveying to various other engineering problems. Drawing-room work on balancing survey, calculating area, and reducing field notes; plotting

maps and profiles; contour problems. *(Required of civil engineering students; second semester; Sophomore year. Recitations, 3 hours per week; field and drawing-room work, 6 hours per week.)*

SURVEYING II.—Recitations on precision leveling, baseline measurements, and determination of meridian, latitude, and time. Field work in precision leveling, baseline work, and meridian and latitude observations. *(Required of civil engineering students; first semester; Junior year. Recitations, 1 hour per week; field work, 3 hours per week.)*

RAILROADS.—Recitations on simple, compound, reversed, vertical, and transition curves, and earthwork. Field problems in curve layout. Drawing-room work in the paper layout of a railroad. Field and drawing-room work in the preliminary and final location of a railroad; plotting of line and profile; earthwork computations. Theory of mass diagram. *(Required of civil engineering students; Junior year. First semester; recitations, 2 hours per week. Field and drawing-room work, 2 hours per week. Second semester: field and drawing-room work, 6 hours per week. Prerequisite: Surveying I.)*

HIGHWAYS.—Recitations on the economics of location and construction of highways; drainage; different types of road construction; road materials; legislation; state and national aid; pavements. A few field exercises scheduled for railroads are devoted to highway work. *(Required of civil engineering students; second semester; Junior year. Recitations, 2 hours per week. Prerequisite or to be taken simultaneously: Railroads.)*

GRAPHIC STATICS.—Recitations and drawing-room exercises in the computation of forces; the plotting of diagrams in elementary graphics and roof-truss problems. *(Required of all engineering students; second semester; Junior year. Recitations, 1 hour per week; drawing-room work, 3 hours per week. Prerequisite: Mechanics a.)*

HYDRAULICS *a*.—Recitations and laboratory work on the elements of hydraulics: dealing with the physical properties of water; head, loss of weight, center of pressure, dams, flow from orifices, jets; pressure-gages, meters, weirs, and other measuring instruments. *(Required of all engineering students; first semester; Senior year. Recitations, 2 hours per*

week; laboratory exercises, 2 hours per week. Prerequisites: Physics I and II, Mathematics III.)

HYDRAULICS *b.*—Recitations on the short tube and other tubes, flow through pipes, piezometer, hydraulic-gradient, nozzles, conduits, sewers, flow in streams, water power, turbines and wheels, stability of ships, and pumps. *(Required of civil engineering students; second semester; Senior year. Recitations, 2 hours per week.)*

CONTRACTS AND SPECIFICATIONS.—The contract in its relation to the engineer. Specifications. *(Required of all engineering students; first semester; Senior year. Recitations, 2 hours per week.)*

MUNICIPAL ENGINEERING.—A study of sewerage, water supply, and plain and reinforced concrete. Recitations on the design and construction of separate and combined sewerage systems; sewage disposal and treatment. Drawing-room work in the design of domestic and storm sewers, together with estimates of cost. Recitations on sources of water supply, purification of supply, filters, pumps, systems of supply, and fire supply. Drawing-room work in the design of a system. Recitations and drawing-room work on the theory and design of plain and reinforced concrete structures. *(Required of civil enginering students; Senior year. First semester; Recitations, 2 hours per week; drawing-room work, 2 hours per week. Second semester; Recitations, 4 hours per week; drawing-room work, 4 hours per week. Prerequisites: Mathematics III, Strength of Materials, and Hydraulics a.)*

STRUCTURAL ENGINEERING.— Recitations and drawing-room work in the graphic analysis of girders and bridge trusses. Theory and computations of stresses in various types of bridges and buildings. Theory and design of wooden and steel roof trusses; highway and railroad bridges; foundations. Theory of cantilever and continuous bridges. Drawing-room design. *(Required of civil engineering students; Senior year. First semester; Recitations, 2 hours per week; drawing-room work, 3 hours per week. Second semester; Recitations, 4 hours per week; drawing-room work, 8 hours per week. Prerequisites: Mechanics a and Strength of Materials.)*

TESTING LABORATORY.— Laboratory work in testing of stone, brick, and other road materials, and in cement, sand, concrete, timber, steel, and other materials used in construc-

tion. *(Required of civil engineering students; second semester; Senior year. Laboratory work; 2 hours per week. Prerequisite: Strength of Materials.)*

ELECTRICAL ENGINEERING

Professor Benton Assistant Professor Perry

Instruction in this department is planned to lay equal stress on classroom work, of theoretical nature, and on laboratory work, of practical nature. For the latter, a well-equipt dynamo laboratory is provided, which is described on page 26.

ELECTRICAL ENGINEERING I*a*.—A short elementary course in general electrical engineering. *(First semester; 2 recitations or lectures and 1 two-hour laboratory exercise per week.)*

ELECTRICAL ENGINEERING I*b*.—Direct current machinery and applications. Textbook used in 1920-21: Langdorf's Principles of Direct Current Machines. *(Required of Juniors in the electrical engineering course; second semester; 3 recitations and 2 three-hour laboratory exercises per week.)*

ELECTRICAL ENGINEERING II.—Alternating current machinery and applications; electric power transmission, and electric lighting. Textbook used in 1920-21: Franklin and Esty's Elements of Electrical Engineering. *(Required of Seniors in electrical engineering; 2 recitations per week the first semester, and 3 the second semester.)*

ELECTRICAL ENGINEERING III*a*.—Telegraph engineering. Textbook used in 1920-1921: Hausman's Telegraph Engineering. *(Required of Juniors in electrical engineering; first semester; 1 recitation and 1 two-hour laboratory period per week.)*

ELECTRICAL ENGINEERING III*b*.—Telephone engineering. Textbook used 1920-1921: Houston and Kennelly's The Electric Telephone. *(Required of Seniors in electrical engineering; second semester; 1 recitation and 1 two-hour laboratory period per week.)*

ELECTRICAL ENGINEERING IV.—Dynamo laboratory work to accompany Electrical Engineering II. *(Required of Seniors in electrical engineering; second semester; 2 three-hour laboratory periods per week.)*

ELECTRICAL ENGINEERING V*b*.—Dynamo laboratory work, and electrical engineering problems. *(Required of Seniors in*

mechanical engineering; second semester; 2 three-hour laboratory periods per week.)

MECHANICAL ENGINEERING

Professor Holmes

Colonel Walker Mr. Gaines

The instruction in this department follows theoretical and practical lines. System, accuracy, and neatness are insisted upon. Engineering magazines and catalogs of the best machinery are accessible to the students, who are encouraged to read them. While acquainting students with practical methods, the aim is to produce engineers of independent thought and original power. In all possible ways the student is encouraged to think for himself—to make improvements wherever possible and thus to keep abreast with the progress of the times.

DESCRIPTIVE GEOMETRY.—*Projections.*—Methods of representing points, lines, surfaces, and solids in space by their projections; their intersections with each other; the careful solution of many original problems on the drawing-board. *(Required of all engineering students; Freshman year; 2 hours.)*

DESCRIPTIVE GEOMETRY PROBLEMS.—*A companion course to Descriptive Geometry.*—Free-hand drawings and further drill in making neat, accurate drawings, mechanically. The latter deals exclusively with the solution of numerous problems of the intersection of lines, planes, and solids and is taught with special reference to developing originality in thinking and reasoning. *(Required of all engineering students; Freshman year; 2 actual hours. Prerequisite: Descriptive Geometry.)*

MECHANISM.—*The Kinematics of Machinery.*—Investigation of link work, construction of gears and cams, belt and pulley drive, trains of mechanism, the velocity ratio, and directional relation of the moving parts of various machines, etc. The text is supplemented by drawing exercises in the construction of gear teeth, cams, and motion diagrams. *(Required of electrical and mechanical engineering students; Sophomore year; second semester; 4 hours.)*

MACHINE DESIGN.—The design and proportioning of machine parts—bolts, riveted joints, keys and gibs, toothed gearing, belt transmission, shafts, journals, bearings; the design

of machines or parts of machines to perform certain functions. From a set of specifications and a manufacturer's catalog, plans must be drawn up for the installation of machines. A certain amount of structural drawing, relative to power plant installations, is also taken up. *(Required of electrical and mechanical engineering students; Senior year; 2 hours of recitations per week thruout the year; also 4 actual hours of drafting-room work the second semester.)*

MECHANICS.—*Analytic and Applied Mechanics.*—The laws of force, friction, equilibrium of fluid pressure, inertia, centrifugal force, kinetic and potential energy, etc. Problems illustrating the practical application of these laws to cranes, derricks, pumps, boilers, engines, dynamos, etc. *(Required of all engineering students; Junior year; 4 hours the first semester, 3 hours the second. Prerequisite: Mathematics III.)*

STRENGTH OF MATERIALS.—Investigation of the strength of materials used in the construction of machinery and engineering structures; analysis of stresses in bridges, roof trusses, and machinery; study of the mechanical properties of iron, steel, timber, cement, etc. The text is supplemented by laboratory tests on specimens of the various materials. *(Required of all engineering students; second semester; Junior year; 4 hours. Prerequisite: the first semester of Mechanics.)*

THERMODYNAMICS.—The steam engine and the laws of thermodynamics; the indicator card; and the losses involved in the conversion of one form of energy into another. *(Required of mechanical and electrical engineering students; Senior year; 3 hours. Prerequisites: Mathematics III, Physics III, and Chemistry I.)*

GAS ENGINES.—The modern internal combustion engine, gas producers, and the utilization in them of liquid fuels. *(Required of mechanical engineering students; second semester; Senior year; 2 hours. Prerequisite: Thermodynamics.)*

VALVE GEARS.—Graphical study of the different types of steam engine valve gears by means of the Zeuner and other diagrams; valve setting and steam distribution obtained by the usual types. *(Required of mechanical engineering students; second semester; Senior year; 2 actual hours. Prerequisite: Thermodynamics.)*

STEAM LABORATORY.—Valve setting; tests of steam gauges, thermometers, engines, and boilers; use of the steam engine

indicator, absorption and transmission dynamometers. *(Required of mechanical and electrical engineering students; second semester; Senior year; 4 actual hours.)*

CHEMICAL ENGINEERING

Professor Leigh Assistant Professor Black

CHEMISTRY VI.—*Chemical Technology.*—Consideration of chemical principles involved in manufacturing and refining products of commercial importance: Fuels, sulphuric acid, the soda and chlorine industries, fertilizers, cements, glass, pigments, coal tar, mineral oils, soap, starch, sugar, fermentation industries, explosives, textiles, paper, leather, etc. Visits are made to such factories and chemical plants as may be accessible. *(Required of chemical engineering students; Senior year; 3 hours.)*

CHEMISTRY X*b*.—*Engineering Chemistry.*— Analysis of materials connected with engineering: Fuels, boiler waters, iron and steel, Portland cements, asphalt and coal tar products, mineral oils, vegetable oils, fats and waxes, paints, fertilizers, soaps, and food products. *(Required of chemical engineering students; Senior year; second semester; 10 actual hours.)*

CHEMISTRY XI.—*Physical Chemistry.*—See page 62.

DRAWING AND MECHANIC ARTS

Acting Professor Strong Colonel Walker

The drawing courses are intended to develop accuracy, speed, neatness, and good form in drafting, sketching, tracing, lettering, etc. Drafting-room practice and conventions are followed in sketching and drawing parts of machines and structures.

In the shops, by the use of standard tools and machines, the students learn something of the operations involved in building machinery and other articles of metal and wood.

DRAWING

MECHANICAL DRAWING.—The use of ordinary drawing instruments; the solution of geometrical problems; lettering; perspective, isometric, and some mechanical drawing from machine parts. *(Required of all engineering students; Freshman year; 4 actual hours.)*

MACHINE DRAWING.—*Interpreting and Reading Drawings.* —The student is required to make true working drawings,

showing all the necessary dimensions and the delineation of the parts to a proper scale. He is given a set of detailed drawings from which to make an assembly drawing or vice versa. A number of tracings and blueprints are also required. *(Required of chemical, electrical, and mechanical engineering students; Sophomore year; 3 actual hours.)*

MECHANIC ARTS

WOOD WORKING.—*(a)*— Exercises in joinery, and some machine work.

(b)—Advanced work in carpentry, cabinet making, furniture making, etc. *(Required of all engineering students; Freshman year; 6 actual hours.)*

FORGE SHOP *a* or *b*.—Hand work in drawing, welding, tempering, casehardening, brazing, etc. *(Required of chemical, electrical, and mechanical engineering students; one semester; Sophomore year; 3 actual hours.)*

FOUNDRY *a* or *b*.— Instruction in foundry practice by means of textbook, lectures, and demonstrations. *(Required of electrical and mechanical engineering students; one semester; Sophomore year; 3 actual hours.)*

MACHINE SHOP I*a*.—Bench and machine work on small articles, furnishing all-around experience. *(Required of electrical and mechanical engineering students; first semester; Junior year; 6 actual hours.)*

MACHINE SHOP II*a*.—A more advanced course than I*a*, and on more difficult problems. *(Required of mechanical engineering students; first semester; Senior year; 6 actual hours.)*

PATTERNMAKING I*b*.—Construction of wooden patterns and core boxes for machine castings and other small metal articles. *(Required of mechanical engineering students; second semester; Junior year; 6 actual hours.)*

OTHER DEPARTMENTS

Descriptions of the other subjects taken by students in the College of Engineering may be found by reference to the Index.

COLLEGE OF LAW

HARRY R. TRUSLER, *Dean*

FACULTY.—H. R. Trusler, R. S. Cockrell, C. W. Crandall, W. G. Kline, J. H. Moore, ————.†

GENERAL STATEMENT

AIM AND SCOPE.—In 1891, the American Bar Association declared that in its opinion it was a part of the highest duty and interest of every civilized state to make provision for maintaining schools of law for the thoro legal education of all who are licensed to practice law. Recognizing the soundness of this statement and desiring to discharge this duty, the State Board of Education and the Board of Control provided for the opening of the College of Law in the University in September, 1909. The advantages to accrue to the State from having, as a part of its educational system, a thoro and systematic course of instruction in the common law, with special consideration of the peculiarities and exceptions applicable in Florida, are many and evident.

It was the purpose of the Board of Control to establish a law school which, by the quality of its work and character of its equipment, would merit and command the confidence and support of the bench and bar. That the hope of accomplishing these results was well founded is shown by the number and character of those who have availed themselves of the advantages offered.

REQUIREMENTS FOR ADMISSION.—See pages 42 to 48, inclusive.

SPECIAL STUDENTS.—See "Adult Specials", page 33.

ADVANCED STANDING.—No work in law done in other institutions will be accepted towards a degree, unless the applicant passes satisfactorily the examinations held in the subjects in question in this College, or unless, by special vote of the Faculty, credit is given without examination. In no case will credit be given for work not done in residence at an approved law school.

†To be elected.

EXAMINATIONS.—The last week of each semester is devoted to examinations covering the work of the semester. These examinations are in writing and are rigid and searching, but are not necessarily final.

All students, unless excused by the Dean, must present themselves for the regular examination in all the subjects for which they are registered. One delinquent examination is allowed for the removal of conditions.

UNIVERSITY PRACTICE COURTS.—Thoroly organized practice courts are regular features of the third year of the curriculum. The object is to give the student practical instruction in pleading and practice at law and in equity, and experience in the preparation and trial of cases. The work is arranged as follows:

First.—Cases arising upon prepared statements of fact are assigned, upon which the students are to determine what proceedings to bring and how to bring them, issue, serve, and return process, prepare the pleadings, and to bring the case to an issue on a question of law. The case is heard on the sufficiency of the form and the structure of the pleadings; when these are approved the issue of law is argued and decided, the students acting as attorneys drawing the order, judgment, or decree to which they deem themselves entitled.

Second.—In the second class of cases, actual controversies are arranged and assigned for trial in the Circuit Court as issues of fact. After determining what action to bring, the students assigned to the case are required to issue the proper process and prepare and file the necessary pleadings, subpoena the witnesses, select the jury, examine and cross-examine the witnesses, and argue the case to the jury. Each student is required to participate in the trial of at least one common-law, one equity, and one criminal case and is instructed in appellate procedure.

The Practice Court is conducted by Professors Cockrell and Crandall.

LIBRARY.—The Law Library contains:

Three sets of Florida Reports with Wurts' Digest and Supplement; Shepard's Florida Citations; The Session Laws of Florida from 1822 to 1919, except from 1828 to 1834; McClellan's Digest and Duval's Compilation of the Laws of Florida; Revised Statutes of 1898; three sets of the General Statutes of 1906; two sets of Florida Compiled Laws of 1914; Reports of the Florida Railroad Commission, the Attorney General

of Florida, the Interstate Commerce Commission, and the Land Decisions of the Department of the Interior; Federal Statutes Annotated; Thorpe's American Charters, Constitutions and Organic Laws; Hinds' Precedents of the House of Representatives; the Northwestern, Southwestern, Northeastern, Southeastern, Atlantic, Pacific, and Southern Reporters; the American Decisions, American Reports, and American State Reports, with digests; the American Annotated Cases, with digests; the American and English Annotated Cases, with digests; the Lawyers' Reports Annotated, old and new series, with digests; the United States Supreme Court Reports, with digests; Rose's Notes; Federal Cases; Federal Reporter; Stimson's American Statute Law; the State Reports to the Reporters of Alabama, Arkansas, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, West Virginia, and Wisconsin; the New York Court of Appeals Reports; the New York Common Law and Chancery Reports, with digests; the Pacific States Reports, with digests, which include the California Reports, the Colorado Supreme Reports, the Colorado Appeals, the Idaho Reports, the Kansas Reports, the Montana Reports, the Nevada Reports, the New Mexico Reports, the Oregon Reports, the Utah Reports, the Washington Reports, and the Wyoming Reports to the Reporters; the Reprint of the English Reports; the English Law Reports; the British Ruling Cases; Mew's English Digest; Halsbury's Laws of England; the Century, the Decennial, the Second Decennial, and the Key Number Digests; the Encyclopedia of Law and Procedure; Corpus Juris; the Encyclopedia of Forms; the Standard Encyclopedia of Procedure; two sets of Ruling Case Law; the Harvard Law Review; more than one hundred selected volumes for the class in Brief Making and the Use of Law Books; and more than two hundred of the leading textbooks and books of reference.

A course of instruction is given in legal bibliography and the use of law books. Every facility, also, is offered law students to make use of the General Library, in which are included works of interest and information to lawyers.

Both libraries are open during the academic year on every secular day between the hours of 8:00 a. m. and 10:00 p. m., and are in charge of trained librarians, who render needed aid to students.

MARSHALL DEBATING SOCIETY.—Early in the first year of the College the students organized a society that would secure to its members practice in debating and public speaking and experience in arguing legal questions, as well as drill in parliamentary law. The society was fittingly named "The Marshall Debating Society", in honor of the memory of the distinguished Southern jurist, John Marshall. Membership and work in the society are limited to students in the College of Law, but the Faculty give all possible assistance and encouragement.

UNIVERSITY PRIVILEGES.—The advantages of the other colleges of the University are open to such students in the College of Law as desire and are able to accept them. Courses

in History, Economics, Sociology, Psychology, Logic, and English are particularly recommended. No extra charge is made for such courses, but they can be taken only with the consent of the Law Faculty and of the professors concerned.

DEGREES.—The degree of Bachelor of Laws (LL.B.) is conferred upon those who satisfactorily complete ninety semester hours in the course of study. Students admitted to advanced standing may receive the degree after one year's residence, but in no case will the degree be granted unless the candidate is in actual residence during all of the third year.

Students who have complied with all the requirements for the degree of Bachelor of Laws (LL.B.), who have maintained an average standing in their law studies 10% above the passing mark, and who have obtained the degree of A.B., or an equivalent degree, from an approved college or university, or who secure such degree the same year they complete their law course, will be awarded the degree of Juris Doctor (J.D.).

COMBINED ACADEMIC AND LAW COURSE.—See page 54.

EXPENSES.—A tuition fee of $20.00 per semester, payable in advance, is charged all law students, except those taking less than eleven hours of work, who are charged a proportional part of the full tuition. The cost of books for the first year will approximate $45.50; for the second, $42.50-$53, depending on the electives taken; for the third, $55.50. Students are urged to provide themselves with the statutes of their own state and a law dictionary. These books will form a nucleus for the student's future library; and by the purchase of second-hand books the cost may be materially reduced. (See also page 35.)

ADMISSION TO THE BAR.—Upon presenting their diplomas, duly issued by the proper authorities, and upon furnishing satisfactory evidence that they are twenty-one years of age and of good moral character, the graduates of the College are licensed by the Supreme Court, without examination, to practice in the Courts of Florida. They also are admitted without examination to the United States District Court for the Northern District of Florida.

COURSE OF INSTRUCTION

The course of instruction extends thru three years of thirty-five weeks each, exclusive of vacations.

Particular stress is placed upon the statutory modifications of the common law and the recent decisions of the courts. This is true in every subject in the curriculum; but it is especially emphasized in Pleading, Practice, and Evidence, as the course of study is designed to instruct the student thoroly in the peculiarities of procedure, so that he will be able understandingly to enter upon the practice of law. Students are offered the option of intensive training under either the code or the common law.

FIRST YEAR

FIRST SEMESTER

TORTS.—History and definitions; elements of torts; conflicting rights; mental anguish; parties to tort actions; remedies; damages; conflict of laws; methods of discharge; comprehensive study of particular torts: false imprisonment, malicious prosecution, abuse of process, conspiracy, slander and libel, trespass, conversion, deceit, nuisance, negligence, and others. Textbooks: Burdick on Torts and Burdick's Cases on Torts, 3rd edition. *(5 hours. Professor Trusler.)*

CONTRACTS I.—Formation of contract; offer and acceptance; form and consideration; reality of consent; legality of object; operation of contract; limits of the contract obligation; assignment of contract; joint obligations; interpretation of contract. Textbooks: Anson's Law of Contract, Corbin's Edition; Huffcut and Woodruff's Cases on Contract. *(4 hours. Professor Moore.)*

CRIMINAL LAW.—Sources of criminal law; nature and elements of crime; criminal intent; insanity; intoxication; duress; mistake of fact or law; justification; parties in crime; offenses against the person, habitation, property, public health and morals, public justice and authority, government, and the law of nations. Textbook: Clark on Criminal Law, 3rd edition; selected cases. *(2 hours. Professor Cockrell.)*

CRIMINAL PROCEDURE.—Jurisdiction; arrest; preliminary examination and bail; grand jury, indictment and information and their sufficiency in form and substance; arraignment, pleas, and motions; *nolle prosequi* and motions to quash; jeopardy; presence of defendant at the trial; verdict; new

trial; arrest of judgment; judgment, sentence, and execution. Textbook: Clark's Criminal Procedure, 2nd edition; selected cases. *(2 hours. Professor Cockrell.)*

PROPERTY I.—Personal property; possession and rights based thereon; acquisition of title; liens and pledges; conversion. Textbook: Warren's Cases on Property. *(2 hours. Professor Crandall.)*

SECOND SEMESTER

EQUITY JURISPRUDENCE.—History and definition; jurisdiction; maxims; accident, mistake, fraud; penalties and forfeitures; priorities and notice; bona fide purchasers; estoppel; election; satisfaction and performance; conversion; equitable estates, interest, primary rights; trusts; powers, duties, and liabilities of trustees; mortgages; equitable liens; assignments; specific performance; injunction; reformation; cancellation; cloud on titles; ancillary remedies. Textbook: Eaton on Equity; selected cases. *(5 hours. Professor Trusler.)*

CONTRACTS II AND QUASI CONTRACTS.—Rules relating to evidence and construction; discharge of contract. Origin and nature of quasi contract; benefits conferred in misreliance on rights or duty, from mistake of law, and on invalid, unenforceable, illegal, or impossible contract; benefits conferred thru dutiful intervention in another's affairs; benefits conferred under constraint; action for restitution as alternative remedy for breach of contract and for tort. Textbooks: Anson's Law of Contract, Corbin's Edition; Woodruff's Cases on Quasi Contracts. *(3 hours. Professor Moore.)*

MARRIAGE AND DIVORCE.—Marriage in general; nature of the relation; capacity of parties; annulment; divorce; suit, jurisdiction, grounds; defenses; alimony; effect on property rights; custody and support of children; agreements of separation. Textbook: Vernier's Cases on Marriage and Divorce. *(1 hour. Professor Cockrell.)*

COMMON LAW PLEADING.—History and development of the personal actions at common law; theory of pleading and its peculiar features as developed by the jury trial; demurrers, general and special; pleas in discharge, in excuse, and by way of traverse; replication *de injuria;* duplicity; departure; new assignment; motions based on pleadings; general rules of pleadings. Textbook: Andrews' Stephen's Common Law Pleading. *(3 hours. Professor Crandall.)*

SALES.—Sale and contract to sell; statute of frauds; illegality; conditions and warranties; delivery; acceptance and receipt; vendor's lien; stoppage *in transitu;* bills of lading; remedies of seller and buyer. Textbook: Burdick on Sales, 3rd edition; selected cases. *(1 hour. Professor Moore.)*

PROPERTY II.—Introduction to the law of conveyancing; rights incident to the ownership of land, and estates therein, including the land itself, air, water, fixtures, emblements, waste; profits; easements; licenses; covenants running with the land. Textbook: Warren's Cases on Property. *(2 hours. Professor Crandall.)*

SECOND YEAR

FIRST SEMESTER

UNITED STATES CONSTITUTIONAL LAW.—General principles; distribution of governmental powers; congress; the chief executive; the judiciary; police powers; eminent domain; checks and balances; guarantee of republican government; civil rights; political privileges; guarantee in criminal cases; impairment of contractual obligations. Textbook: Hall's Cases on Constitutional Law, American Casebook Series. *(4 hours. Professor Kline.)*

AGENCY.—Nature of the relation; purposes and manner of creation; who may be principal or agent; ratification; delegation of authority; general and special agents; rights and duties of agents; termination, nature, extent, construction, and execution of authority of agents; rights, duties, and liabilities of agents; principal and third persons *inter se;* particular classes of agents. Textbooks: Mechem's Outlines of Agency and Mechem's Cases on Agency. *(2 hours. Professor Moore.)*

EQUITY PLEADING.—Nature and object of pleadings in equity; parties to a suit in equity; proceedings in a suit in equity; bills in equity; disclaimer; demurrers and pleas; answer and replication; preparation of bills, demurrers, pleas, answers. Textbooks: Fletcher's Equity Pleading and Practice; Rules of the Circuit Court in Chancery in Florida; Rules of the Federal Court; Statutes of Florida. *(3 hours. Professor Cockrell.)*

BRIEF MAKING AND THE USE OF LAW BOOKS.—Where to find the law; how to use statutes and decisions; how to find the law; the trial brief; the brief on appeal and its prepara-

tion. Textbook: Cooley's Brief Making and the Use of Law Books. *(1 hour. Professor Crandall.)*

PROPERTY III.—Titles and conveyancing, including acquisition of titles by possession, modes of conveyance at common law, under the statute of uses, and by statutory grant; the execution of deeds; estates created; covenants for titles; estoppel by deed; priorities among titles. Textbook: Aigler's Cases on Property. *(3 hours. Professor Crandall.)*

FLORIDA CONSTITUTIONAL LAW.*—Declaration of rights; departments of government; suffrage and eligibility; census and apportionment; counties and cities; taxation and finance; homestead and exemption; married women's property; education; public institutions; miscellaneous provisions. Textbooks: Constitution, statutes, and judicial decisions of Florida. *(2 hours. Professor Trusler.)*

CODE PLEADING.**—Changes introduced by the codes; forms of action; necessary allegations; the complaint; prayer for relief; answers, including general and special denials; new matter; equitable defenses; counter claims; pleading several defenses; replies and demurrers. Textbook: Pomeroy's Code Remedies. *(2 hours. Professor ————.†)*

SECOND SEMESTER

EVIDENCE.—Judicial notice; kinds of evidence; burden of proof; presumptions of law and fact; judge and jury; best evidence rule; hearsay rule and its exceptions; admissions; confessions; exclusions based on public policy and privilege; corroboration; parol evidence rule; witnesses; attendance in court; examination, cross examination, privilege; public documents; records and judicial writings; private writings. Textbook: Greenleaf on Evidence, 16th edition, vol. 1; selected cases. *(4 hours. Professor Cockrell.)*

PRIVATE CORPORATIONS.—Nature; creation and citizenship; defective organization; promotors; powers and liabilities; corporations and the State; dissolution; membership; management; creditors; foreign corporations; practice in forming corporations, preparing by-laws, electing officers, and in conducting corporate business. Textbooks: Clark on Private Cor-

*For students intending to practice in Florida.
**For students not intending to practice in Florida.
†To be elected.

porations, and Wormser's Cases on Corporations. *(4 hours. Professor Moore.)*

LEGAL ETHICS.—Admission of attorneys to practice; taxation; privileges and exemptions; authority; liability to clients and to third parties; compensation; liens; suspension and disbarment; duties to clients, courts, professional brethren, and to society. Textbooks: Attorneys at Law in Ruling Case Law and the Code of Ethics adopted by the American Bar Association. *(1 hour. Professor Trusler.)*

PROPERTY IV.—History of the law of wills and testaments; testamentary capacity and intent; kind of wills and testaments; execution, revocation, republication, revival of wills; descent; probate of wills and the administration of estates. Textbook: Costigan's Cases on Wills. *(3 hours. Professor Crandall.)*

FLORIDA CIVIL PRACTICE.* — Organization of courts; parties; joinder and consolidation of actions; issuance, service, and return of process; appearance; trial; verdict; proceedings after verdict; appellate proceedings; peculiar characteristics of the common law actions; special proceedings including certiorari, mandamus, prohibition, quo warranto, habeas corpus, attachment, garnishment, statutory liens, forcible entry and detainer, landlord and tenant. Textbook: Crandall's Florida Civil Practice. *(3 hours. Professor Cockrell.)*

GENERAL CIVIL PROCEDURE.**—The court; parties; forms of action; the trial; selection of jury and procedure in jury trial; judgment; execution; appeal and error. Textbook: Loyd's Cases on Civil Procedure. *(3 hours. Professor ———.†)*

THIRD YEAR

FIRST SEMESTER

INSURANCE.—Theory, history, significance; insurable interest; concealment, representations, warranties; subrogation; waiver and estoppel; assignees, beneficiaries; creditors; fire, life, marine, accident, guarantee, liability insurance. Textbooks: Humble's Law of Insurance and Humble's Cases on Insurance. *(1 hour. Professor Trusler.)*

PUBLIC SERVICE CORPORATIONS.—Nature of public utilities; railroads and other common carriers of goods and passengers;

*For students intending to practice in Florida.
**For students not intending to practice in Florida.
†To be elected.

telegraphs and telephones; light and water companies; inns; warehouses; elevators; stockyards; methods of incorporation; public control; rights and obligations at common law and under federal and state statutes. Textbook: Wyman's Cases on Public Service Companies, 3rd edition. *(2 hours. Professor Moore.)*

FEDERAL PROCEDURE AND BANKRUPTCY.—System of courts created under the authority of the United States, jurisdiction of the several courts and procedure therein; Federal and state bankruptcy legislation; who may become bankrupt; prerequisites to adjudication; receivers; trustees; provable claims; exemptions; composition; discharge. Textbooks: Hughes on Federal Procedure, and Remington on Bankruptcy, Students' Edition. *(3 hours. Professor ————.†)*

PARTNERSHIP.—Creation, nature, characteristics of a partnership; nature of a partner's interest; nature, extent, duration of the partnership liability; powers of partners; rights, duties, remedies of partners *inter se;* rights and remedies of creditors; termination of partnership. Textbook: Mechem on Partnership, 2nd edition; selected cases. *(2 hours. Professor Moore.)*

ADMIRALTY.—Jurisdiction; contracts, torts, crimes; maritime liens, ex contractu, ex delicto, priorities, discharge; bottomry and respondentia obligations; salvage; general average. Textbook: Hughes on Admiralty. *(1 hour. Professor ————.†)*

PROPERTY V.—Conditional estates; licenses and waivers; reversions and remainders; rule in Shelley's Case; future uses; future interests; executory devises and bequests; vesting of legacies; cross limitations; gifts; failure of issue; determination of classes; powers; rule against perpetuities; restraints on alienation. Textbook: Kales' Cases on Future Interests. *(3 hours. Professor Crandall.)*

MORTGAGES.—Nature; elements; incidents of the relation; discharge; assignment; redemption; foreclosure; injunction and account; extent of the lien; priority between mortgage liens and competing claims; equity of redemption. Textbook: Durfee's Cases on Mortgages. *(2 hours. Professor Cockrell.)*

PRACTICE COURT.—*(1 hour.)*

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†To be elected.

SECOND SEMESTER

DAMAGES.—General principles; nominal; compensatory; exemplary; liquidated; direct and consequential; proximate and remote; general and special; measure in contract and tort actions; entire damages in one action; mental suffering; avoidable consequences; value; interest; lateral support; counsel fees and expenses of litigation; injuries to real property and limited interests; death by wrongful act; breaches of warranty. Textbook: Rogers' Law of Damages; selected cases. *(2 hours. Professor Trusler.)*

MUNICIPAL CORPORATIONS.—Creation of cities and towns; powers of a municipality, including public powers, power of taxation, power over streets and alleys, etc.; obligations and liabilities of municipal corporations; powers and liabilities of officers. Textbook: Elliott on Municipal Corporations, 2nd edition. *(1 hour. Professor Cockrell.)*

SURETYSHIP.—Nature of the contract; statute of frauds; surety's defenses against the creditor; surety's rights, subrogation, indemnity, contribution, exoneration; creditor's rights to surety's securities. Textbook: Spencer on Suretyship. *(2 hours. Professor Kline.)*

NEGOTIABLE INSTRUMENTS.—Law merchant; definitions and general doctrines; contract of the maker, acceptor, certifier, drawer, indorser, vendor, accommodater, assurer; proceedings before and after dishonor of negotiable instruments; absolute defenses; equities; payments; conflict of laws. Textbook: Bigelow on Bills, Notes and Cheques. *(2 hours. Professor Moore.)*

CONFLICT OF LAWS.—Jurisdiction; sources of law and comity; territorial jurisdiction; jurisdiction in rem and in personam; remedies, rights of action, procedure; creation of rights; property rights; personal rights; inheritance; obligations ex delicto and ex contractu; recognition and enforcement of rights; personal relations; property; inheritance; administration of estates; judgments and obligations. Textbook: Minor on the Conflict of Laws. *(2 hours. Professor ———.†)*

INTERNATIONAL LAW.—Nature, subjects, and objects of international law; intercourse of states; settlement of international differences; law of war; law of neutrality. Textbook:

†To be elected.

Hershey's Essentials of International Public Law; selected readings. *(1 hour. Professor* ————.†*)*

TRUSTS.—The Anglo-American system of uses and trusts; creation, transfer, extinguishment of trust interests; priorities between competing equities; construction of trust dispositions; charitable trusts. Textbook: Kenneson's Cases on Trusts. *(2 hours. Professor Kline.)*

JUDGMENTS.—Nature and essentials; kinds; record; vacation; amendment; modification; satisfaction. Textbooks: Rood on Judgments and Rood's Cases on Judgments. *(2 hours. Professor Crandall.)*

PRACTICE COURT.—*(1 hour.)*

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†To be elected.

TEACHERS COLLEGE AND NORMAL SCHOOL

J. W. NORMAN, *Dean*

FACULTY.—J. W. Norman, J. N. Anderson, E. C. Beck, J. R. Benton, A. P. Black, L. M. Bristol, L. W. Buchholz, C. L. Crow, J. M. Farr, P. W. Fattig, J. R. Fulk, W. B. Hathaway, J. M. Leake, T. R. Leigh, T. H. Quigley, Joseph Roemer, T. M. Simpson, A. J. Strong, J. E. Turlington.

TEACHING FELLOW.—H. C. Johnson.

STUDENT ASSISTANTS.—S. W. Cason, G. C. Hamilton, P. L. Peaden, G. B. Simmons, D. E. Williams.

GENERAL STATEMENT

AIM AND SCOPE.—It is the main purpose of the Teachers College and Normal School to furnish such training as will be most useful to its students in the profession of teaching. A teacher should be scholarly, but should also be resourceful in managing a schoolroom or a system of schools. This college attempts to give both kinds of training. More specifically, it prepares its students for positions as teachers, principals, supervisors and county or city superintendents of public instruction. It strives also to develop in its students a keen insight into human affairs, relationships and problems. About one-fourth of a student's time is devoted to professional subjects in Education, the other three-fourths to Arts and Science subjects.

DEGREES.—Courses are offered leading to the degrees of Bachelor of Arts in Education, Bachelor of Science in Education, and Bachelor of Science in Agricultural Education. For the Bachelor of Arts degree the major elective work must be chosen in Groups II and III, or Group II or III; for the Bachelor of Science degree, from Group IV. In addition to these degrees, the Normal Diploma, sometimes called the L. I. degree, is granted to those students who have finished the second year's work in Teachers College, with the exception that the foreign language work is elective, and that in the

Sophomore year Education V*a* and VI*b* are required. Inasmuch as there is considerable agitation in the United States at present to make two years of training beyond the high school a minimum requirement for teaching in the elementary school, all students are urged by all means to complete this minimum requirement necessary to receive the Normal Diploma.

STATE CERTIFICATES.—Graduates of the Teachers College and of the Normal School are granted State Certificates without further examination—provided that one-fifth of their work has been devoted to professional training and provided that during each of the last two years of their course they have made a general average of eighty-five on all subjects and have not fallen below sixty in any subject. These State Certificates are converted into Life Certificates in the usual way.

REVIEW COURSES.—The Review Courses usually offered in the second semester, are intended to prepare for the examinations for County and State Certificates.

VOCATIONAL EDUCATION.—By act of the Legislature of 1917 the University was designated as the institution, under the Smith-Hughes Act, for training teachers for Agriculture and for Trades and Industries. Tentative curricula for Agricultural Education and for the Trades and Industries have been outlined. It is hoped that a large number of students will register for these courses. Many teachers of these subjects will be needed and good salaries will be paid.

The University will secure for students positions during vacations enabling them to gain the practical experience required of those taking courses in Vocational Education.

PEABODY HALL.—A description of Peabody Hall, the home of the College, is to be found on page 23.

LIBRARY.—The General Library, which is temporarily located in Peabody Hall, receives the best educational journals and contains the standard books on educational theory, general and special methods, the history of education, psychology and philosophy. Additions are made every year.

PEABODY CLUB.—This Club meets once a week to discuss educational problems, especially those that confront the young

teacher. It also brings out the advantages of holding teachers' meetings and conferences. All students of the College are urged to become members and to take an active interest.

ORGANIZATION.—The Teachers College and Normal School has the following divisions:

(1) Teachers College.
(2) Normal School including Normal Training School.
(3) University Summer School.
(4) High School Visitation.
(5) Teachers' Employment Bureau.

TEACHERS COLLEGE

ADMISSION.—See pages 42 to 48, inclusive.

TEACHING FELLOWSHIPS.—See page 38.

ELECTIVES.—In order that they may be well prepared to teach in high schools, students are expected to take at least three high school subjects for one year or longer in the college. It is assumed that they will elect along with the subjects which they hope to teach, closely related subjects, and will take advantage of the freedom of choice to become especially proficient in these. Students who expect to do their supervised teaching in Chemistry should have completed as a minimum Chemistry I and II. Similarly, those who expect to do their supervised teaching in English should have completed as a minimum, English I plus one other course in college English; those expecting to do their supervised teaching in French should have completed French A and French I; in History, the usual courses in high school plus History I in the University; in Latin, Latin I; in Mathematics, Mathematics A, B, and I; in Physics, Physics V or Physics I, II and III; in Spanish, Spanish A and Spanish I; in Biology, Biology I, II and III. It is desirable that in each case more than the minimum be completed.

The choice of electives must be approved by the Dean and only in exceptional cases will he permit a student to do his supervised teaching who has not completed the minimum requirements as outlined above. (For requirements for supervised teaching in Normal School see page 155.)

CURRICULUM

Leading to the Degree of Bachelor of Arts or Bachelor of Science in Education

Freshman Year

Names of Courses	Nature of Work	Hours per Week
Education I*a*	Introduction to Education	3
Education I*b*	Education in United States	
English I	Rhetoric and Composition	3
Foreign Language	French, Latin, Spanish or Greek	3
Agronomy I	General Agriculture	6
Biology I*a* and II*b*	Biology and Botany	
Chemistry I	General Chemistry	
Foreign Language	French, Latin, Spanish or Greek	
History I	Modern European	
Mathematics		
Physics I	General Physics	
Military Science I		1
		16

Sophomore Year

Education II*a* and II*b*	Reviews and Methods of Teaching Arithmetic and Grammar, Reading, Geography and History	3
or		
Education VI*a* and	Child Study	
Education IV*b*	High School Curriculum	
Military Science II		1
Philosophy I	General Psychology	3
Foreign Language	French, Greek, Latin or Spanish	3
Group III	(See page 53)	3
Group IV	(See page 53)	3
		16

Junior Year

Education III*a*	Public School Administration and Supervision	3
Education III*b* or	Problems in Administration and Supervision	
Education XIV*b*	High School Administration	
Education VII*a*	Educational Problems	1
Electives		11
		15

Senior Year

Education V*a*	Technique of Teaching	3
Education V*b*	History and Philosophy of Education	
Education IV*a*	Adolescence	3
Education VI*b*	Supervised Teaching	
Electives		10
		16

CURRICULUM, AGRICULTURAL EDUCATION COURSE

Leading to the Degree of Bachelor of Science in Agricultural Education.*

Freshman Year

Names of Courses	Nature of Work	Hours per Week	
Agricultural Engineering I*a*	Machinery and Motors	4	0
Agronomy I	Soils and Crops	2	2
Animal Husbandry I*b*	Types and Breeds of Animals	0	4
Biology I	General Biology	4	0
Biology II	General Botany	0	1
English I	Advanced Composition and Rhetoric	3	3
Horticulture I	Plant Propagation	2	2
Mathematics B	Plane Trigonometry	2	2
Military Science I		1	1
		18	18

Sophomore Year

Agronomy II	Field Crops	3	0
Agronomy III	Forage Crops	0	3
Biology VI	Economic Zoology	3	3
Chemistry I	General Chemistry	5	5
Horticulture II or Animal Husbandry II and III	Trucking or Animal Feeding and Breeding	2	2
Education I*a*	Introduction to Education	3	3
Education I*b*	Education in the United States		
Military Science II		1	1
		17	17

Junior Year

Agronomy IV*b*	Fertilizers	0	3
Sociology III or Economics I	Rural Sociology or Principles of Economics	3	3
Education III*a*	Public School Administration and Supervision	3	3
Education III*b* or Education XIV*b*	Problems in School Administration and Supervision; High School Administration		
Education VIII	Vocational Education	3	3
Electives in Agriculture		8	5
		17	17

Senior Year

Agronomy VI*a*	Farm Management	3	0
Shop Work	Vocational Shop Work	3	3
Education XVI	Observation and Supervised Teaching	3	3
Agricultural Journalism I	Principles of Agricultural Journalism	0	3
Electives in Agriculture		5	5
		14	14

*In order to obtain a State Certificate students who elect this curriculum must take one-fifth of their work in Education.

VOCATIONAL EDUCATION—TRADES AND INDUSTRIES

CURRICULUM FOR TEACHERS OF RELATED SUBJECTS

Leading to the Degree of B. S. in Education

Subjects of Study	*Hours per Week	
Freshman Year		
Advanced Algebra, Trigonometry and Analytical Geometry	0	3
Descriptive Geometry	3	3
Elementary Woodworking	3	3
English I	3	3
Mechanical Drawing	2	2
Military Science I	2	0
Physics I	3	3
Physics II	2	2
Sophomore Year		
Carpentry	6	0
Chemistry I	5	5
Forge Shop	1½	0
Foundry	0	1½
Machine Drawing	1½	1½
Masonry and Concrete	0	3
Mechanical Technology	0	1
Military Science II	2	0
Physics III	3	3
Plumbing	0	3
Psychology	0	3
Principles of Teaching	0	3
Junior Year		
Analytical Mechanics	4	0
Architectural Drawing	3	3
Economics	3	0
Electrical Engineering I*a*	3	0
Graphic Statics	0	2½
History of Vocational Education	0	3
Kinematics of Machinery	2	2
Machine Shop	3	0
Pattern Making	0	3
Sheet Metal	3	3
Strength of Materials	0	4
Senior Year		
Electrical Engineering V	0	3
Gas Engines	0	2
Gas Engines, Laboratory	0	2
Machine Design	2	4
Machine Shop	3	0
Organization, Surveys, and Vocational Guidance	0	3
Supervised-Teaching	6	6
Steam Engines	3	0
Steam Engines, Laboratory	0	2
Vocational Methods	3	0

*The first column gives the hours per week for the first semester; the second, those for the second semester.

TWO-YEAR COURSE FOR TEACHERS OF RELATED SUBJECTS

Presupposing considerable practical experience

Subjects of Study	*Hours per Week	
First Year		
Elective Shop Work, Drawing, etc. (supplementing practical experience)	5	5
Elective Mathematics and Science	5	5
Elective English, Civics, Economics, Sociology, etc.	5	5
Elementary Psychology	5	0
Principles of Teaching	0	5
Second Year		
History of Vocational Education	0	3
Vocational Methods	3	0
Supervised Teaching	4	4
Organization, Surveys, and Vocational Guidance	0	3
Elective Shop, Drawing, or Applied Science	13	10

*The first column gives the hours per week for the first semester; the second, those for the second semester.

DEPARTMENTS OF INSTRUCTION

EDUCATION

Professor Norman
Professor Fulk
Professor Buchholz
Professor Roemer
Professor Fattig
Professor Quigley

DESCRIPTION OF COURSES

EDUCATION I*a*.—*An Introduction to the Study of Education.*—This course consists of recitations, observation, and partial participation. During each week some particular phase of classroom activity is discussed, illustrated and participated in by instructor and students. The work of each week consists of one period of lecture or conference, and four periods of laboratory work in the classroom supplemented by individual conferences with the teacher in charge of the room and the director of the course. *(Required of Freshmen; first semester; 3 hours. Professor Norman.)*

EDUCATION I*b*.—*Education in the United States.*—A general view of education; present-day public school problems studied extensively in the light of their historical development; our European educational background; beginnings in America; early attitude of federal and state governments toward education; the struggle for free state supported, state controlled schools; new conceptions, extensions and reorganizations in public education. *(Required of Freshmen; second semester. 3 hours. Professor Fulk.)*

EDUCATION II*a*.—*Reviews and Methods of Teaching Arithmetic and Grammar.*—A review of arithmetic and grammar, to acquaint the student with the fundamental principles of the subjects, followed immediately by methods of teaching them. *(Students may choose between Education IIa and Education VIa. First semester; 3 hours. Professor Buchholz.)*

EDUCATION II*b*.—*Reviews and Methods of Teaching Reading, Geography, and History.*—Mastery of each subject from the teacher's point of view, followed immediately by the best methods of teaching the subject. *(Students may choose between Education IIb and Education IVb. Second semester; 3 hours. Professor Buchholz.)*

EDUCATION III*a*. — *Administration and Supervision of Village and Consolidated Schools.*—A course stressing in a practical way problems peculiar to these schools in Florida;

their relation to federal, state and local government; the supervising principal, qualifications, relation to superintendent, boards, teachers, pupils, patrons and community; adapting the school to the child's needs, organization, curriculum, attendance, promotions, tests, health work; business practices, school finance, material equipment, school housekeeping, records and reports. *(Required of Juniors; first semester; 3 hours. Professor Fulk.)*

EDUCATION III*b*.—*Problems in Public School Administration and Supervision.*—Present tendencies and problems in school organization, administration and supervision in state, county and city, with special application to conditions in Florida; evolution, duties and powers of educational authorities; inter-relation of boards, officers and teachers; work of the superintendent and supervising principal, selection and supervision of teaching corps; improvement of teachers in service; the curriculum; types, promotional plans, care of backward, defective, and gifted children; teachers' councils; health supervision; fundamental reorganizations; auxiliary educational agencies; testing results of teaching; interesting the public in the school; business management, finance, reports and records. Selection will be made from above topics to meet needs of class. Course will include a study of one school survey. Visits will be made to assigned schools for the study of administrative and supervising practice. *(Juniors may choose between Education IIIb and Education XIVb. Second semester; 3 hours. Professor Fulk.)*

EDUCATION IV*a*.—*Psychology of Adolescence.*—The purpose of this course is to give high school principals and teachers a deeper, fuller appreciation of the habitual and impulsive life of boys and girls in their teens. Topics: preadolescence; the physical and mental traits of high school pupils; individual differences among high school pupils and their implications; motor training, gymnastics, athletics, play, sport, and games as they function in the education of the youth; growth of social ideals; adaptation of school work to intellectual development; the psychology of faults, lies and crimes of high school pupils; moral and religious training. *(First semester; 3 hours. Required of Seniors. Professor Roemer.)*

EDUCATION IV*b*.—*High School Curriculum.*—This course is designed to consider the problems of the curriculum of the

high school in its organization. Among the topics treated are: standards for the selection of the curriculum; factors to be considered—age of pupils, social standing, probable school life, probable vocation; its traditional subjects and their possible variations; new subjects and their values; systems of organization, election and prescription; problems of articulation with the elementary school, the college, the vocational school, and the community. *(Second semester, 3 hours. Students may choose between Education IVb and Education IIb. Professor Roemer.)*

EDUCATION V*a*.—*The Technique of Teaching.*—The laws of learning, lesson-planning, thinking, questioning, the problem-project method, the socialized recitation, democracy in the classroom as a preparation for democracy in life. Textbook: Colvin's "An Introduction to High School Teaching." *(Required of Seniors; Juniors admitted by permission. First semester; 3 hours. Professor Norman.)*

EDUCATION V*b*.—*History and Philosophy of Education.*—Standards in education, past and present; the development and present meaning of the concept of culture, humanism, utility, growth, mental discipline, activity leading to further activity, education according to nature, the significance of child life in education. Textbook: Dewey's "Democracy and Education." *(Required of Seniors; Juniors admitted by permission. Second semester; 3 hours. Professor Norman.)*

EDUCATION.—*Child Study.*—The nature, growth and development of the child from birth to adolescence with reference to education; the original nature of the child and his education; the meaning of protracted infancy; training in recognition of types and individual differences, of common defects and how to deal with them; cultivation of intelligent sympathy with children; the effect of Child Study on the practices of elementary and secondary education. *(Sophomores may choose between Education VIa and Education IIa. First semester; 3 hours. Professor Fulk.)*

EDUCATION VI*b*.—*Supervised Teaching.*—Knowledge of the principles, theory and history of education will better fit any teacher for his work, but these without concrete experience and supervision will not give best results. This course is planned to give the student practice in conducting recitations under close supervision. Lesson plans will be required

for all recitations and the manner of teaching will be subject to criticism. Students preparing to teach agriculture must do their supervised teaching in that subject, and four (4) hours will be required. (See Education XVI.) For prerequisites see page 138. *(Required of Seniors; 3 semester hours.)*

EDUCATION VII*a*.—*Educational Problems.*—Each student will be required to write a paper, and to visit and report a limited number of recitations. *(Required of Juniors; 1 hour. Professor Norman.)*

EDUCATION VIII.—Includes a careful study of the history and development of vocational education in the various countries of the world and in the various states of the United States; pre-vocational and vocational guidance; organization of vocational courses of study; development of lesson plans; organization and presentation of subject matter; method and use of the agricultural survey; methods of conducting recitation, laboratory, field and project work; organization of agricultural work upon seasonable sequence basis; community activities of the vocational teacher; etc. *(Junior year; 3 hours. Professor Fattig.)*

EDUCATION IX*a*. — *Vocational Education.* — Development and principles of vocational education with special reference to vocational opportunities in Florida; pre-vocational education and vocational guidance. *(First semester; 3 hours. Professor Fattig.)*

EDUCATION X*a*.—*The Elementary School Curriculum.*—An attempt to formulate a curriculum based on social conditions, and social needs; a brief historical development of content; selection and evaluation of material in the light of aims and activities of the present social situation, and the nature and needs of child life; inherited traditional matter; the curriculum as a group of related problems and projects of vital interest to children, and its relation to pre-school life; the place of the kindergarten; the six or eight year curriculum; deferred values and the secondary curriculum; variation in subject-matter and method of teaching determined by home and community; study of curricula made to meet individual and community needs; importance of the classroom teacher, his spirit, vision and enthusiasm in presenting and interpreting subject-matter. *(Elective for Juniors and Seniors; first semester; 3 hours. Professor Fulk.)*

EDUCATION X*b*.—*Educational Hygiene*.—Conditions and forces that affect the physical and mental vigor of children and teachers, and relate the school to the health of the home and community; location and sanitation of school buildings; hygienic furniture; diseases and physical defects; medical inspection; hygiene of instruction; teacher's health; play and recreation; teaching of hygiene. *(Elective for Juniors and Seniors; second semester; 3 hours. Professor Fulk.)*

EDUCATION XI.—*Educational Diagnosis*.—The making of school surveys; the use of scales for measuring educational products; educational stock-taking. How to determine what kind of school a community needs, and what progress pupils are making, etc. *(Elective for Graduate Students; 3 hours.)*

EDUCATION XII.—*Current Educational Problems*.—Problems vitally important to the success of the teacher. Various phases of school life and activities will be discussed and some attention will be given to educational administration and school law as they affect the teacher. *(Elective for Graduate Students; 3 or more hours.)*

EDUCATION XIV*a*.—*Junior High School*.—The purpose of this course is to give principals and teachers a knowledge of the Junior High School and its organization. Since the movement is in its formative period in Florida, much attention and study will be given to concrete cases and local conditions. Topics: Need of reorganization of the traditional high school; changes needed in the program of studies, discipline, methods of teaching, etc.; development of the Junior High School; special function of the Junior High School; organization, curricula and courses of study, etc., of the Junior High School. *(First semester; 3 hours. Professor Roemer.)*

EDUCATION XIV*b*.—*High School Administration*.—This course is designed to study the practical management and administration of the modern high school. It will consider such topics as: duties of principal as head of school; relation of principal to board of education, superintendent, teachers, pupils and community; legal status of high school; systems of financing; selection, supervision, promotion, retention and dismissal of teachers; adjustment of teaching load; testing and grading of pupils; problem of discipline; pupil guidance, athletics, wider use of school plant, supervised study, student activities, teachers' meetings, etc. *(Junior students may*

choose between Education XIVb and Education IIIb. Second semester; 3 hours. Professor Roemer.)

EDUCATION XV.—*Democracy and Education.*—The nature of experience, the nature of institutions, the social inheritance, the individual, society, socialization, social control, dynamic and static societies, education its own end. *(Elective for Seniors and Graduate Students. 3 hours. Professor Norman.)*

EDUCATION XVI.—Supervised teaching under the Smith-Hughes Act is done in the local high school. The class has three recitations and two double laboratory periods per week. Each member of the class carries on a project of the same scope as corresponding ones in the Smith-Hughes Agricultural Schools. *(Education VIII a prerequisite. Senior year; 3 hours. Professor Fattig.)*

ITINERANT PLAN OF TRAINING INDUSTRIAL TEACHERS

Under the Smith-Hughes Act there are two types of teachers of trade and industrial education: the shop teacher, who gives instruction in the actual shop or trade manipulative subjects—carpentry, machine shop, blacksmithing, printing, etc.; the related-subject teacher, who teaches the technical branches relating to the trade—drawing, related mathematics or science.

In cooperation with the State Board for Vocational Education, the University is securing as many as possible related-subject teachers from the industries of the State, altho a few may be obtained from among the members of the teaching profession. All of the shop teachers will be obtained from the industries. Prospective trade and industrial teachers are selected because of their industrial experience, education, moral and civic ideals, and potential teaching ability, which qualifications are determined mainly by personal interview and by careful inquiry of fellow-workmen and employers. Once selected, these prospective teachers, obviously varying greatly in preparation, are grouped in evening classes in their home cities and trained by a representative of the University in the art of teaching, altho as much as possible of the work in Supervised Teaching is done in part time classes.

As demand arises, those who have successfully completed the courses are, with the approval of the State Board for Vocational Education, put into service by local boards. Fifteen

men have up to the present time been thus trained and immediately afterwards placed in teaching positions.

The subjects taught are divided into four groups, each usually requiring thirty hours for completion. If possible, however, much more than thirty hours will be devoted to the Supervised Teaching, especially as thru this most of the Observation will also be accomplished.

The course will in general be as follows:

A.—History and Development of the Vocational Education Movement; Mechanics of Teaching; Shop Organization; Educational Law (state and national); Trade Analysis for Educational Purposes.

B.—Applied Science; Shop Mathematics; Mechanical Drawing and Design; Industrial Methods.

C.—Supervised Teaching.

D.—Supervised Teaching; Observation; Making Up Deficiencies in Trade or General Education and in Trade Experience.

NORMAL SCHOOL

COURSES AND REQUIREMENTS

The Normal School offers three curricula.

CURRICULUM I.—*Four-Year Normal.*—This curriculum is similar to that of the standard normal schools of this country. Applicants who have finished the first two years of a high school, or those who hold a First Grade County Certificate, will be admitted to the first year of this curriculum. High school graduates will be allowed to enter the third year. Graduates of the Normal School will be admitted to the Junior class of the Teachers College and will be granted a State Certificate, provided they make an average of eighty-five per cent in all subjects during the third and fourth years.

CURRICULUM FOUR-YEAR NORMAL

First Year

Names of Courses	Nature of Work	Hours per Week
English NI	Rhetoric, Composition and Classics	4
History NI	Modern European History	4
Mathematics NI	Plane Geometry	4
Take 5 hours of the following:		
Agriculture NI	Elements of Agronomy and Horticulture	3
Education NI	General Pedagogy	4
Latin NI	Beginner's Course	4
Mechanic Arts NI *a* and NII*b*	Wood work	3
Science NI	Biology	4
Science NII	Chemistry	4
Spanish NI	Beginner's Course	4
Required		20

Second Year

English NII	Rhetoric, Composition and Classics	4
History NII	American History and Civics	4
Take 10 hours of the following:		
Agriculture NII	Elements of Animal Husbandry and Agricultural Engineering	3
Education NII	School Management	4
Latin NII	Caesar (3 books) and Composition	4
Mathematics NII	Plane Trigonometry and Solid Geometry	4
Mechanic Arts NIII*a* and NIV*b*	Forge and Foundry Work	4½
Science NIII	Physics	4
Spanish NII	Second Year Course	4
Required		20

Third Year

(Same as Freshman year in Teachers College, except that foreign language is elective.)

Fourth Year

(Same as Sophomore year in Teachers College, except that foreign language is elective and Education V*a* and VI*b* are required.)

DEPARTMENTS OF INSTRUCTION

AGRICULTURE

AGRONOMY NI.—*Agronomy and Horticulture.* (See pages 85 and 91.)

AGRICULTURE NII.—*Agricultural Engineering and Animal Husbandry.* (See pages 86 and 87.)

EDUCATION

Professor Buchholz

EDUCATION NI.—*General Pedagogy, Reviews and Methods.* Elementary principles of school control. Review of subjects to be taught, methods of teaching. *(4 hours.)*

EDUCATION NII.—*School Management and Methods.*—Special attention given to the management of rural schools. Methods of study and teaching. *(4 hours.)*

ENGLISH

Professor Hathaway

ENGLISH NI.—*Composition and Classics.*—The elements of composition emphasized; grammar reviewed. Much written work required. Carefully selected list of classics prescribed for reading and study. *(First year; 4 hours.)*

ENGLISH NII.—*Composition, Rhetoric and Classics.*—Broader and of higher grade than English NI, which is presupposed. The structure of the sentence, the paragraph, and the connected paragraph stressed. *(Second year; 4 hours.)*

HISTORY

Professor Buchholz Professor Fulk

HISTORY NI.—*Modern European History.*—Medieval history touched lightly, stress being placed upon modern European history. Textbook and reference reading. *(First year; 4 hours. Professor Buchholz.)*

HISTORY NII.—*American History and Civics.*—Early discoveries to the present time; civics in connection with the history. Stress will be laid upon local history, geography and industries, transportation and communication, organized community life and public health, local, state and national governments. Textbook and reference reading. *(Second year; 4 hours. Professor Fulk.)*

LATIN

Professor Hathaway

LATIN NI.—*Beginner's Latin.*—A good first-year book will be completed. *(First, second or third year; 4 hours.)*

LATIN NII.—*Caesar, Composition and Grammar.*—Three books of Caesar, with composition and grammar. *(Second, third or fourth year; 4 hours.)*

MANUAL TRAINING

Professor Strong

MECHANIC ARTS NI*a*.—See Wood Working *a*, College of Engineering.

MECHANIC ARTS NII*b*.—See Wood Working *b*, College of Engineering.

MECHANIC ARTS NIII*a*.— See Forge Shop, College of Engineering.

MECHANIC ARTS NIV*b*.—See Foundry, College of Engineering.

MATHEMATICS

Professor Norman

MATHEMATICS NI.—*Plane Geometry*.—First five books in Plane Geometry. *(First year; 4 hours.)*

MATHEMATICS NII.—*Solid Geometry and Plane Trigonometry*.—Study of the topics covered by standard high schools. *(Second year; 4 hours.)*

SCIENCE

Professor Roemer

SCIENCE NI.—*Biology*.—Essentials of plant, animal and human biology; textbook and laboratory work. Carefully kept notebooks required. *(First year; 4 hours.)*

SCIENCE NII.— *Chemistry*.— Elementary principles of chemistry; textbook and laboratory work. Carefully kept notebooks required. *(First year; 4 hours.)*

SCIENCE NIII.—*Physics*.—Elements of physics; textbook and laboratory work. Carefully kept notebooks required. *(Second year; 4 hours.)*

SPANISH

Professor Hathaway

SPANISH NI.—*First Year*.—Pronunciation and reading aloud, dictation, conversation, forms, simple constructions, reading of easy selections. *(First year; 4 hours.)*

SPANISH NII.—*Second Year*.—Work of first year continued. Grammar, elements of syntax, exercises, dictation, conversation, reading of selections. *(Second year; 4 hours.)*

CURRICULUM II.—*Two-Year Elementary Professional*.—This course includes all subjects taught in the elementary and rural schools. It gives special attention to methods, management, rural problems, and such other professional subjects as

will make rural- and grammar-school teachers more efficient. Applicants who hold teachers' certificates, or who have finished the eighth grade will be admitted to the first year. On the completion of Curriculum II, students will be admitted to the first year of the Four-Year Normal Curriculum.

CURRICULUM, TWO-YEAR ELEMENTARY PROFESSIONAL

First Year

Names of Courses	Nature of Work	Hours per Week
Education II*a*	Reviews and Methods of Teaching U. S. and Florida History, Reading and Political Geography	3
English 2-Yr. I	Grammar, Composition and Classics	4
History 2-Yr. I	American History and Civics	4
Mathematics 2-Yr. I	Algebra	4
Science 2-Yr. I	Physical Geography and Physiology	4

Second Year

Education II*b*	Reviews and Methods of Teaching Arithmetic and English Language	3
Education 2-Yr. III	School Management and Rural Problems	4
English 2-Yr. II	Composition and Classics	4
Mathematics 2-Yr. II	Algebra	4
Science 2-Yr. II	Agronomy and Horticulture	3

DESCRIPTION OF COURSES OF STUDY

EDUCATION II*a*.—*Reviews and Methods of Teaching U. S. and Florida History, Reading and Political Geography.*—The work is broader and more advanced than that of the eighth grade and is looked at from both the teacher's and the pupil's point of view. History is studied in the fall, reading in the winter and geography in the spring, the subject-matter being first given and then the methods of presenting it to the class. *(3 hours.)*

EDUCATION II*b*.—*Reviews and Methods of Teaching Arithmetic and the English Language.*—Thoro reviews are made and difficult parts explained. Methods of teaching are given after the reviews are completed. *(3 hours.)*

EDUCATION 2-YR. III.—*School Management and Rural Problems.*—School organization, classification, discipline, school hygiene, recess, play; one- and two-teacher rural schools; grading rural schools; rural boys and girls; relation of teacher to child, home, and community. *(4 hours.)*

ENGLISH 2-YR. I.—*Grammar, Composition and Classics.*—Advanced grammar and composition, oral and written; spelling and letter-writing. English Classics suited for the upper grades of the grammar school and the ninth grade of the high school. *(4 hours.)*

ENGLISH 2-YR. II.—*Composition and Classics.*—Similar to preceding course, but more advanced. *(Prerequisite: English 2-Yr. I or its equivalent. 4 hours.)*

HISTORY 2-YR. I.—*American History and Civics.*—(See History NII, page 151.)

MATHEMATICS 2-YR. I.—*Algebra.*—A beginner's course covering the work thru elementary quadratics. *(4 hours.)*

MATHEMATICS 2-YR. II.—*Algebra.*—Review of Algebra to quadratics, then quadratics and the remaining part of an ordinary second-year algebra. *(4 hours.)*

SCIENCE 2-YR. I.—*Physical Geography and Physiology.*—The work in physical geography will be about as outlined in the newer secondary school geographies. Correlation of physical with political and commercial geographies—especially necessary for teachers—will be stressed. Laboratory and field work with notes on all observations and experiments. *(First semester.)*

Physiology, Sanitation and Hygiene.—Laboratory work with notes required. *(Second semester; 4 hours.)*

SCIENCE 2-YR. II.—*Agronomy and Horticulture.*—(See pages 85 and 91, catalog May, 1921.) Soils and soil fertility in relation to plant growth, and principles governing production of field and forage crops; varieties and culture requirements of our principal fruits and vegetables; location of orchards and gardens with reference to soils, climate, and markets; protection from insects and diseases; harvesting and marketing; styles of decorative plants adapted to home and school. *(3 hours.)*

CURRICULUM III.—*Review.*—This covers both the contents and the methods of teaching the subjects required for County and State Certificates and is designed for those engaged in teaching from four to six months in the year and desirous of renewing or advancing the grade of their certificate. There are no requirements for admission to Curriculum III, and all teachers who can profit by it are welcomed.

A registration fee of five dollars ($5.00) will be charged students entering immediately after the Christmas vacation. Those entering in April will be required to pay two dollars and a half ($2.50).

NORMAL TRAINING SCHOOL

The former sub-collegiate division of the University has been so widened as to make it a supervised normal training school for the students of education. Here student-teachers have opportunity to observe the methods of skilled instructors and to do teaching under supervision.

ADMISSION.—Only pupils who have finished work equal to that of the tenth grade will be admitted. No pupil will be enrolled who has not completed the course offered by the high school at his home, except upon the written application of parent or guardian, accompanied by the endorsement of his high school principal.

RESTRICTIONS.—The pupils of the Normal Training School are not considered college men and are, therefore, not permitted to join any fraternity, athletic team, or other organization conducted for or by the University students proper.

STUDIES.—The work is equivalent to that of the eleventh and twelfth grades of the standard high schools of Florida. Not less than fifteen nor more than twenty hours from the first two years of Curriculum I (see page 149) may be taken in any one year except by special permission. All choice is subject to the approval of the Dean of the Teachers College.

DRILL.—Students below the Freshman class are not required to drill.

UNIVERSITY SUMMER SCHOOL

(CO-EDUCATIONAL)

June 14-August 6, 1920
June 20-August 12, 1921

FACULTY (1920).—H. W. Cox, W. S. Cawthon, J. N. Anderson, E. C. Beck, A. P. Black, F. W. Buchholz, Miss Margaret C. Burns, J. M. Chapman, P. W. Corr, Miss Rose Cox, C. L. Crow, P. W. Fattig, W. L. Floyd, J. R. Fulk, Mrs. Christine Harcourt, W. B. Hathaway, P. H. Hensley, R. H. Hixson, C. F. Hodge, C. E. Jackson, Albert Johnstad, J. M. Leake, G.

M. Lynch, H. C. Metcalfe, J. W. Norman, Mrs. J. W. Rumley, T. M. Simpson, Miss Shelton Souter, R. K. Watkins, F. S. Wetzel, George E. White, Ruth White, S. L. Woodward.

GENERAL STATEMENT

The University Summer School was provided for by the "Summer School Act" passed by the Legislature of 1913. It is co-educational and maintained primarily for the benefit of the teachers of the state, but other courses are offered.

The entire equipment of the University is at the service of the faculty and students. Ample provision is made for intellectual recreation and physical exercise. The Peabody Literary Society meets weekly; lectures or concerts are given frequently; the gymnasium, swimming-pool, baseball grounds, and tennis courts are at the disposition of the students and instructors are at hand to direct athletic activities.

REGULATIONS.—To fulfill its highest mission the Summer School should not be utilized merely for the purpose of "cramming" for examinations. It is therefore hoped that all teachers will recognize the wisdom of the Summer-School Board in establishing the following regulations:

1. No teacher shall be allowed to take more than twenty hours per week of purely academic subjects.
2. No teacher shall take less than five hours per week of professional work.

The maximum number of hours per week, including professional, vocational, and academic subjects, shall, in no case, exceed twenty-seven. Two laboratory hours shall count as one hour of academic work.

CREDIT FOR WORK.—Attention is directed to the following sections of the "Summer School Act":

Sec. 5.—"All work conducted at the said Summer Schools shall be of such character as to entitle the students doing the same to collegiate, normal, or professional credit therefor, and may be applied towards making a degree."

In order to carry out the spirit of this provision, the University allows, under restrictions, a maximum of four and a half credit hours for work done at any one session of the Summer School. Attendance at three summer sessions satisfies the residence requirements for securing a Normal School Certificate or an undergraduate degree from the Teachers College. For an advanced degree four sessions are required. By combining credits gained at the Summer School with those gained

in the Extension Division, it is possible for a teacher to secure a certificate or a degree without losing a prohibitive amount of time from his work. Certificates and degrees secured in this way are awarded, when so desired, on the last day of a session of the Summer School.

Sec. 6.—"All teachers attending any of the Summer Schools herein created and whose work entitles them to credit therefor, upon making proof of the same to the State Superintendent of Public Instruction, are hereby entitled to one year's extension on any Florida teacher's certificate they may hold and which has not fully expired, and such certificate may be extended one year for each succeeding session attended by the said teacher."

Certificates of credit making proof of the work done will be granted by the State Superintendent only to those teachers who attend the full term and whose work is satisfactory.

EXPENSES.—There is no charge for tuition. There is a registration fee of $2.00. Board and lodging (including lights, but not pillows, bed linen, or towels) will be offered at $5.25 per week, or $40.00 for the entire session of eight weeks; board without lodging at $4.25 per week or $32.00 per session. Children under eight years of age will not be admitted to the dormitories, but may dine with their parents in the Commons at $2.00 per week. Children between eight and ten $2.50 per week for board; above ten, full charge. A charge of $1.00 will be made, as an infirmary fee, covering payment for services of physician and nurse, if needed. All accounts are payable in advance.

COURSES OF STUDY

The courses given during the session of 1920 were fully described in the Summer School Bulletin of that year and were, furthermore, for the most part very similar in character to the corresponding ones of the Teachers College and Normal School. In view of these facts, and inasmuch as a detailed program for the session of 1921 will be published separately, it is thought unnecessary here to make more than mere mention of the courses in question. The work offered in the Summer School of 1921 is divided into five separate and distinct groups, each serving a specific purpose:

1. REVIEW COURSES in all subjects required for county, state and special certificates.

2. PROFESSIONAL COURSES meeting the requirements for the extension of teachers' certificates without examination.

3. NORMAL COURSES leading to the normal diploma.

4. COLLEGE COURSES leading to standard college degrees of A.B. and B.S.

5. GRADUATE COURSES leading to advanced degrees.

6. HIGH SCHOOL COURSES for mature students and for those who do not have adequate high school facilities at home.

A complete catalog of all the work of the Summer School will be issued. For reservation of rooms and other information address J. W. Norman, Dean, Gainesville, Fla.

HIGH SCHOOL VISITATION

Thru Dr. Roemer, Professor of Secondary Education, the University strives to keep in close touch with the high schools of the state. Part of his time is taken up with visiting the high schools and lending such aid and encouragement as will be productive of stronger high schools and a closer connection between them and the University.

TEACHERS' EMPLOYMENT BUREAU

Teachers College and Normal School desires to serve the whole state in every possible way. For this purpose a Teachers' Employment Bureau was instituted and is open thruout the year. From school officials it receives requests for teachers. From teachers it receives requests for information as to vacancies. It files such information and tries, when called upon, to meet the needs of both teachers and school officials. To be of greatest service it needs and invites the cooperation of superintendents, principals, and teachers. Officials needing trained men or women, and teachers desiring promotion or change, are asked to call upon the Bureau for its aid. No charges are made for services. For information, address Mrs. A. L. Landers, University of Florida, Gainesville, Florida.

DEPARTMENT OF HYGIENE

ALBERT W. SWEET, *Director*

M. H. DePass, Physician to University.
R. G. Manchester, Director Physical Education.
W. G. Kline, Director Major Athletics.
K. D. Colson, Stenographer.
Ruth Dreher, Nurse.

INSTRUCTION

HYGIENE I.—Instruction by lecture and recitation in personal Hygiene; individual and group Hygiene, with especial reference to infectious diseases, their causes, effects and treatment; sex Hygiene and social diseases; relationship of food, soil, air and water to health and disease. *(2 hours per week thruout the year. Acceptable for credit for pre-medical work by the American Medical Association.)*

PHYSICAL EDUCATION.—Required class work in physical exercises in the Gymnasium. Consists of exercises for general development and use of Gymnasium apparatus. *(3 hours per week. Dr. Manchester and assistants.)*

MAJOR SPORTS.—Instruction in methods of play of all major athletics for competitive purposes; theory of major athletics. *(Hours to be arranged. Professor Kline and assistants.)*

MINOR SPORTS.—Instruction in all minor sports, including tennis, swimming, volley ball, hand ball, medicine ball, push ball, wrestling, boxing, mass play games; theory and practice of individual play and team play for purposes of developing recreational exercise for class and inter-mural teams. *(Dr. Manchester and assistants.)*

MEDICAL ASSISTANCE

PHYSICAL EXAMINATION.—Regular physical examinations occur twice yearly, and in particular cases more frequently, when necessary or desired. Opportunity is afforded for individual conference with University Physician and assistants.

MEDICAL TREATMENT.—During four of the hours of the University schedule the University Physician is available for consultation. Infirmary care is provided for those requiring it. Patients are given constant nurse care by a resident registered nurse. *(Dr. DePass and Miss Dreher.)*

DIVISION OF MILITARY INSTRUCTION

RESERVE OFFICERS' TRAINING CORPS.

Senior Division, Infantry Unit.

Bloxham Ward, Major, Infantry, U. S. Army, Commanding Officer, Professor of Military Science and Tactics; Frank L. Culin, Captain, Infantry, U. S. Army, Assistant Professor of Military Science and Tactics; John H. Atkinson, Captain, U. S. Army, Retired, Assistant Professor of Military Science and Tactics. Enlisted Assistants: First Sergeant Ernest A. Kopp, Infantry, U. S. Army; First Sergeant Dallis B. Hundley, Infantry, U. S. Army; First Sergeant William A. Weaver, U. S. Army, Retired.

AUTHORITY FOR.—The authority for the maintenance of the Reserve Officers' Training Corps will be found in the National Defense Act, June 3, 1916, as amended by the act of June 4, 1920. This act and the amended act provide for the maintenance, at colleges, of units of the Reserve Officers' Training Corps, and authorizes the Secretary of War to furnish the necessary supplies and provide a standard course of instruction.

OBJECT.—These units were authorized by Congress for the purpose of providing a corps of reserve officers to lead our augmented armed forces in time of war. The war with Germany has shown conclusively that we must depend upon college men for our additional officers. It is a part of the approved military policy of the people of the United States to maintain a small standing army. When the nation is drawn into war and large additional armed forces are raised it is necessary that they be provided with trained officers. A study of our military history shows that many lives have been sacrificed in the past because of the scarcity of officers capable of leading men in combat. The Government has attempted to rectify this by training young men in college so that if war comes they may step into positions of leadership and acquit themselves creditably.

COURSES OF INSTRUCTION.—The War Department has laid out a standard course of instruction covering a period of four years. This is divided into a basic course and an advanced

course. By an agreement between the University authorities and the War Department at the time of the establishment of the unit, the basic course was made compulsory for all physically fit male students taking a course leading to a degree. This course is usually pursued during the Freshman and Sophomore years, but must be taken prior to graduation and in two consecutive years. The object of this course as laid down by the War Department is to give each student in college such military training as would enable him to qualify as a non-commissioned officer or regular volunteer of drafted forces in time of war. Students who complete the basic course may be selected by the Professor of Military Science and Tactics and the President of the University for the advanced course. Those students who take the advanced course are expected to carry it to completion as a prerequisite to graduation. In addition they receive credits towards graduation for their work in this course. The object of the advanced course is to qualify students as second lieutenants in the Infantry Reserve Corps. In order to encourge as many students as may qualify to take this course, the Government pays commutation of rations at the rate of $.53 per day. This commutation of rations is paid from the time the student signs the contract until he is graduated if that time does not exceed two years. He is paid commutation of rations during the vacation separating his two years in the advance course. No commutation of rations is paid, however, during time lost from college. While the student is at camp, he is paid $1.00 per day and furnished rations in kind. Each member of the Reserve Officers' Training Corps is given a gratuitous issue of uniform, not including shoes. This uniform is lent to the student, who is responsible for its care and safe-keeping. Commutation of rations, payments in camp, and the use of a uniform, result in a saving to the student, in the course of a year, of the substantial sum of $407.81.

CAMPS.—The War Department conducts training corps camps each summer at locations suitable for that purpose. These camps are open to students taking the basic course and a certain quota is allotted each college. The attendance at the basic course camp is voluntary. The attendance at the advanced course camp is compulsory and is one of the things agreed upon by the student when he signs the contract to take

the advanced course. These camps afford a fine opportunity for the student to improve his military knowledge and to engage in healthful recreation. The War Department pays his railroad expenses from the University to the camp and return by giving him mileage at the rate of five cents per mile. He is given free rations, medical attendance, clothing, and laundry service while there. He is surrounded by every moral safeguard and provided with every recreation and healthful amusement that a young man could wish. Chaplains and Y. M. C. A. workers look after his moral welfare and every effort is made to improve him mentally, morally, and physically.

EQUIPMENT.—The University of Florida is equipped with all of the latest model infantry weapons and all students taking military training are taught how to use them. A target range is provided and special attention is devoted to practice with the service rifle.

PHYSICAL EXAMINATION.—All students undergoing military training must take a physical examination and no student can be given a gratuitous issue of uniform or can be paid commutation of rations unless pronounced physically fit. The standard of requirements is as prescribed by the War Department. The examination will be held at the time and place designated by the President of the University and by a physician selected by him.

COMMISSIONS.— Upon the completion of the advanced course those students who are recommended by the President of the University and the Professor of Military Science and Tactics will upon their own application be offered a commission in the Infantry Reserve Corps. There is no obligation upon the students to accept these commissions but the War Department is anxious to have every such student accept, as it is desirable to maintain a large and efficient Officers' Reserve Corps and this is considered to be the best way to do it.

UNIVERSITY CREDITS.— In addition to making the basic course a prerequisite to graduation and in addition to requiring all students signing the contract for the advanced course to complete such course as a prerequisite to graduation, the following additional credits, in addition to two credit hours for drill, are authorized: Military Science I and II, one year hour; Military Science III and IV, two year hours.

WHO WILL TAKE MILITARY TRAINING.—All students will take military training except graduate students, law students, Juniors and Seniors who have completed the basic training course, vocational training students (disabled soldiers), citizens of foreign countries, students who are taking the four months course in agriculture, and the physically disqualified. Students who are more than 22 years of age at date of original entry into the University may be excused from military training by applying to the Professor of Military Science and Tactics. All students so excused and who are taking a course leading to a degree must take additional academic work to compensate for the loss of credits in military training.

DRILL.—All students who are required to drill will also be required to take the theoretical work in military science.

The General Faculty has enacted the following ruling on this subject:

1. The physically disqualified must submit a certificate to that effect from a physician designated by the President of the University and must also, prior to graduation, make up an equivalent amount of work in some other department.

2. Two (2) credit hours shall be the equivalent of three hours of drill.

3. Students from other institutions entering the Junior or Senior class without having had the requisite amount of physical instruction, shall, unless physically disqualified, be required to take military science and drill for two (2) years, or one (1) year, respectively, excepting that in the Senior year a study equivalent may be submitted for drill.

REGISTRATION FOR MILITARY TRAINING.— All students entering the University for the first time, except law students and students taking vocational training, will be required to register for military training. Cards for that purpose will be issued from the office of the Registrar. Those students who are issued cards will be expected to fill them in and deliver them to the Professor of Military Science and Tactics within 72 hours from the date they enter the University. If any student feels that he should be excused from drill he will so state on the card in a place provided for that purpose, setting forth his reasons. Students who have already signed the contract to take the advanced course in the R. O. T. C. need

not register for drill, but will report in person to the Professor of Military Science and Tactics within 48 hours after registration.

CREDITS FOR MILITARY TRAINING.—Credit for work in a Reserve Officers' Training Corps Unit similar to the one at the University of Florida will be given to all students who present duly authenticated credentials. Credit in other schools where military training and drill is required will be given in such amount as the Professor of Military Science and Tactics may decide appropriate. Duly authenticated credentials must be presented in every case before any credits can be given. Students who contemplate entering the University of Florida from other schools are advised to have their military training credits brought up to date so that they can be presented at the same time as their academic credits.

DIVISION OF REHABILITATION

Professor Buchholz, Counselor

It is the aim of the instructors to discover and to cultivate the talent of the Rehabilitation Men and thus to prepare them to fill successfully their stations in life.

Special courses in arithmetic, reading, writing, and elementary agriculture are given to those who have not finished the common-school grades. Provision is made even for those who can neither read nor write.

COLLEGE OF AGRICULTURE

The Dean and the Counselor aid the student in selecting his studies, so that the knowledge acquired may be of the greatest practical value to him after the completion of his work at the University.

Men able to satisfy the entrance requirements may select from the courses offered in this College. Those who have completed the tenth grade, or its equivalent, are advised to enter upon the Middle Course in Agriculture (see pages 93 to 95). Deficiencies in entrance requirements may be made up in the Normal Training School and the Teachers College and Normal School.

For those who have finished the common-school branches there has been arranged the following:

Names of Courses	Nature of Work	*Hours per Week	
Agricultural Education I	Library Work	1	0
Agricultural Education II	Agricultural Organizations	0	1
Agricu'l Engineering II	Farm Motors	2	0
Agronomy A	Elements of Agronomy	3	0
Agronomy B	Fertilizers	0	3
Animal Husbandry A	Elements of Animal Husbandry	3	0
Animal Husbandry B	Elements of Dairying	0	3
Bee Culture	Elements of Bee Culture	0	3
Dairying I	Dairy Products	3	0
Horticulture I	Plant Propagation	2	2
Horticulture II	Trucking	2	2
Horticulture IV	Citrus Culture	3	0
Horticulture V	Citrus Harvesting and Marketing	0	3
Horticulture VI	Insects and Diseases of Citrus Fruits	3	0
Poultry Husbandry I	Farm Poultry	0	3
Veterinary Science I	Veterinary Elements	0	3
		22	23

COLLEGE OF ENGINEERING

Vocational men able to satisfy entrance requirements may select from the courses offered in this College.

Those who have finished plane trigonometry may also enter for advanced courses and, if they wish to become candidates for a degree, may make up deficiencies in entrance requirements in the University Normal Training School.

Ambitious students who have finished the eighth grade may select from the following:

Names of Courses	Nature of Work	*Hours per Week	
Auto Mechanics	Practical Maintenance and Repair of Motor Vehicles	3	0
Forge I*a*	Blacksmithing	3	0
Machine Shop	Use of Machine Tools	6	0
Mechanical Drawing	The Use of Ordinary Drawing Instruments	4	4
Elementary Wood Carving	Furniture Construction	0	6
Woodworking	Carpentry and Wood Turning	6	0

*The first column gives the hours per week for the first semester, the second column the hours per week for the second semester.

COLLEGE OF LAW

Men who cannot satisfy the entrance requirements will be admitted as adult specials.

TEACHERS COLLEGE AND NORMAL SCHOOL

Men who can satisfy the entrance requirements may select courses preparing for teaching Agriculture, Trades and Industries, or the usual high-school subjects; others, if they have finished the eighth grade, may enter upon courses preparing for teaching in elementary schools.

EXTENSION SERVICE

The aim of the modern university or college is to serve not only a group of qualified resident students, but all the people in the commonwealth supporting it. Consequently, in order to reach people living at a distance, an Extension Service has been established, made up of an Agricultural and a General Extension Division representing the University of Florida and the State College for Women.

The work of the Agricultural Extension Division will be found described on pages 101 to 109; a Home Demonstration Division is maintained at the College for Women; the work of the General Extension Division is carried on thru the Director's office at Gainesville.

GENERAL EXTENSION DIVISION

BERT CLAIR RILEY, *Director*

STAFF.—Clara Louise Fisher, Clifton F. Hodge, Charles F. Davis, Ella M. Allison, Mary Ellen Foley, Julia Annette Keeler, Alice L. Allison, Cedora Futch, J. Rex Farrior, Marion A. Hall, Ralph E. Callahan.

Special Lecturers and Instructors.—Edwin Earle Sparks, Herbert S. Sawyer, Mabel Sanchez, Louise E. Tewksbury, Emily K. Buchholz, Florence B. Cotnam, Emily Newell Blair.

Regular Faculties of University of Florida and State College cooperate.

The General Extension Division carries on extension activities for the Colleges of Arts and Sciences, Education, Engineering, and Law of the University, and the College of Arts and Sciences and the Schools of Education, Physical Education, and Music of the State College for Women. The work has been divided into four departments:

I. Extension Teaching.
II. Public Welfare.
III. Instruction by Lectures and Public Discussion.
IV. General Information.

EXTENSION TEACHING

The Extension Teaching Department has been designed to give to all who cannot attend the University or College an

opportunity to get instruction which may be a help and pleasure to them. This work is carried on thru (1) correspondence, (2) class, and (3) club.

CORRESPONDENCE.—Correspondence study offers to everyone an excellent opportunity to advance in his vocation, obtain a degree, or to take courses for culture.

Review courses for teachers, high-school work for students in rural communities, college work for busy men and women, special vocational and trade courses for those who wish to advance in their line of work, and reading courses for those on the farm, in the shop, office, and home are offered. Many courses are given by the University thru the Colleges of Arts and Sciences, Education, Engineering, and Law; while special work is given in Journalism and Business. At the College for Women, the College of Arts and Sciences and the Schools of Education, Physical Culture, and Music also offer correspondence courses.

CLASS.—Wherever possible, extension classes in technical or cultural subjects will be organized. The work will be supervised by faculty members of the University or of the State College for Women.

CLUB.—Thru club-study associated groups of people are given an opportunity to study and to keep in touch with the latest thought on cultural and professional subjects. A definite plan for cooperative study under a faculty member is provided.

PUBLIC WELFARE

Thru the Public Welfare Department short courses, community institutes, conferences and surveys will be directed by the General Extension Division. Assistance will also be given to all clubs, societies, public boards, and other agencies working for the public good and community advancement.

SHORT COURSES.—Courses will be conducted at prominent places in the State for the benefit of all citizens.

COMMUNITY INSTITUTES AND CONFERENCES.—Thru conferences, commercial clubs, churches, women's clubs, parent-teachers' associations, and other organizations working toward community betterment will be brought together in order to avoid duplication of effort. Thru the community institute an opportunity will be given to make systematic inves-

tigation, to carry on necessary discussion, and to focus the attention of the whole community along the lines most needed to make the home town the best of places in which to live.

SURVEYS.—Plans are under way for conducting surveys, along lines most needed, in different parts of the State. From these, it is hoped, much valuable information will be made available.

INSTRUCTION BY LECTURES AND PUBLIC DISCUSSION

Since the mass of our citizens must get much of their instruction and information and must formulate their opinions on present-day questions concerning the community, state, and nation thru lectures and public discussion, a lecture bureau is maintained by the Division and every effort is made to encourage people to get together in a community forum, in order that a majority decision may be reached and action may be taken.

LECTURE BUREAU.—The University offers thru this Bureau lectures by prominent citizens, faculty members, and speakers from other universities and states. These lectures are technical, informational, or inspirational in character. When ample notification is given, speakers will be furnished to women's clubs, commercial clubs, for teachers' institutes, commencement addresses, and other special occasions.

It is hoped that in another year the Division can act as a clearing-house for lecture-course talent, thus enabling communities to secure this additional feature at cost.

PUBLIC DISCUSSION BUREAU.—To assist in the development of the community forum material will be lent on current questions and present-day problems and suggestions will be given for organization and program building.

GENERAL INFORMATION

In addition to disseminating the stores of information obtainable thru the faculties of the University of Florida and of the State College for Women, the General Extension Division will otherwise help individuals and communities solve their present-day problems.

Every effective means of assisting the people will be employed. Under this Department are found (1) the Bureau

of Public Information, (2) the School and Community Center Bureau, (3) the Bureau of Visual Instruction, and (4) the Educational Information Bureau.

Bureau of Public Information.—This Bureau will, in answer to reasonable requests for help on any problem confronting the individual or community, act as a clearing-house for all kinds of information.

School and Community Center Bureau.—This Bureau assists citizens and organizations who realize the value and necessity of developing the school house or some other central place of meeting as a Community Center and of offering the proper kind of play and recreation for children of all ages as well as adults.

The services of a specialist for advice on public recreation and play-ground equipment is offered free to interested communities and teachers and others are given every necessary help in becoming local leaders.

Aid is given in putting on community programs. Plays, recitations and pageants are lent to societies, clubs and schools. Leaders are also lent books on new games and story books for children of all grades. Teachers are furnished educational magazines of value to them in their profession. Talking machine records in sets making up complete programs, accompanied by lecture material, will be furnished to farmers' clubs, women's organizations, churches and schools.

Visual Instruction Bureau.—Instruction thru the medium of the eye is known to be one of the most effective ways of reaching many people; therefore, by cooperating with the large corporations, bureaus, and departments of the United States Government, the General Extension Division can supply clubs, schools, and communities with slides and motion-picture reels for instruction and entertainment. Lecture outlines accompany the slides.

Educational Information Bureau.—Thru this Bureau questions concerning school problems will be answered and special effort will be made to render service to officials seeking information on school buildings and equipment by furnishing data concerning work done and results obtained by the various communities in the State. The Bureau will not make suggestions, but will act merely as a clearing-house for information

furnished by the schoolmen of the State for the benefit of others.

Address all communications to the Director, General Extension Division, University of Florida.

REGISTER
DEGREES AND CERTIFICATES

IN COURSE
JUNE 1, 1920

Civil Engineer

Hall, Harvey Aldrich, B.S.C.E. ..... Gainesville, Fla.

Juris Doctor

Gordon, Horace Caldwell, A.B. ..... Tampa, Fla.
Hampton, Edwin Birkett, A.B. ..... Gainesville, Fla.
Thompson, Harry Louis, B.S.C.E., LL.B. ..... Gainesville, Fla.

Bachelor of Arts

Alderman, George Carl ..... Lake Butler, Fla.
Daniell, William Edward ..... Pensacola, Fla.
Hollinrake, Seth Westlake ..... Ocala, Fla.
Stapleton, Herman Vanroy ..... Gainesville, Fla.
Williams, Thomas Duke ..... Jacksonville, Fla.

Bachelor of Arts in Education

DeSilva, Harry Reginald ..... Pensacola, Fla.

Bachelor of Science

Coleman, John Alexander ..... Plant City, Fla.
Dalton, Joseph William ..... Tampa, Fla.
Massaro, Alfonso Ferraro ..... Tampa, Fla.
Williams, Owen Edgar ..... Haskell, Fla.
Wolfson, Abraham Maurice ..... Tampa, Fla.

Bachelor of Science in Agriculture

Carvalho, Romen de Souza ..... Rio de Janeiro, Brazil
Clemons, Joseph Gordon ..... Plant City, Fla.
DeVane, Claude Lee ..... Plant City, Fla.
Hansen, Sigfred Christian ..... Ft. Myers, Fla.
Hopkins, William Barnes ..... Tallahassee, Fla.
Hurlebaus, Edward Hughson ..... Bradentown, Fla.
Nolen, Robert Emmet ..... Fellsmere, Fla.
Powell, Hubert Giles ..... Lake City, Fla.
Sensabaugh, Reeve Lee ..... Winter Haven, Fla.
Sparkman, James Kershaw ..... Tampa, Fla.
Sundy, John Dewey ..... Delray, Fla.
Ticknor, Julian Newton ..... Dade City, Fla.
Tribble, Henry Rawlings ..... Palatka, Fla.
Westmoreland, Robert Lowell ..... Live Oak, Fla.
Wilson, Leo Hughes ..... Bartow, Fla.

Bachelor of Science in Education

Blackburn, Luther Lebryon ..... Bowling Green, Fla.
Durrance, Frederick York ..... Arcadia, Fla.
Gillis, John Allison ..... Ponce de Leon, Fla.

Bachelor of Science in Agricultural Education

Roberts, George Carl ..... Trenton, Fla.
Scofield, Joseph Washington ..... Inverness, Fla.

Bachelor of Science in Civil Engineering

Bushnell, Byron Earle ..... Tampa, Fla.
Hargrave, Robert Turner ..... St. Petersburg, Fla.
Rosenthal, Joseph Dalton ..... Tampa, Fla.
Stringfellow, Hart Robert ..... Gainesville, Fla.
Yancey, Malcolm Nicholas ..... Plant City, Fla.

Bachelor of Science in Electrical Engineering

Bushnell, Harry Herman.....Pensacola, Fla.
DeFlorin, William Victor.....Jacksonville, Fla.
Kent, Selden Gourley.....Cocoanut Grove, Fla.
Little, John Peyton, Jr.....Clearwater, Fla.
Paxton, Earl Barber.....Sanford, Fla.
Pratt, Larell Bettes.....Ortega, Fla.

Bachelor of Science in Mechanical Engineering

Axelson, John Newton.....Pensacola, Fla.
Warner, Henry Clay.....Tampa, Fla.
Zeder, Henry Haild.....Delray, Fla.

Bachelor of Laws

Bailey, Howard Sanderson.....Lynn Haven, Fla.
Barns, Paul Dryden.....Largo, Fla.
Beggs, Elmore Dixie.....Pavo, Ga.
Boynton, Leonard O'Hara.....Bartow, Fla.
Caruso, James Joseph.....Wilmington, Del.
Dopson, Walter Alvia.....Sanderson, Fla.
Dye, Dewey Albert.....Bradentown, Fla.
Getzen, Thompson Hart.....Webster, Fla.
Jones, Milton Homer.....St. Augustine, Fla.
Lichliter, Cecil Houston.....Jacksonville, Fla.
Morgan, Lloyd Zaner.....Jacksonville, Fla.
Perryman, Emmett Key.....Starke, Fla.
Watson, John William, Jr.....Miami, Fla.
Williams, Owen Edgar.....Haskell, Fla.

Normal School Diploma

Moyer, Martin Hartwell.....Ft. White, Fla.

Graduate in Farming

Pratt, Allen Bours.....Ortega, Fla.
Sampson, Ralph Howard.....Mango, Fla.
Williams, John Franklin, Jr.....Monticello, Fla.

AUGUST 6, 1920

Master of Arts in Education

Barney, Earle Sevier, A.B. (Stanford).....Union City, Tenn.

Bachelor of Arts in Education

Daiger, Mary Alexander.....Winter Haven, Fla.

Bachelor of Science in Agriculture

Sutker, Nathan.....Savannah, Ga.

Bachelor of Science in Education

Roberts, Walter .....Wellborn, Fla.

Bachelor of Science in Agricultural Education

Dansby, George William.....Reddick, Fla.

Normal School Diploma

Donaldson, Malcolm Gilbert.....Shady Grove, Fla.

MEDALS AND PRIZES

Declaimer's Medal.....W. G. Jeacle
Junior Orator's Medal.....H. M. Friedlander
Senior Orator's Medal.....C. H. Lichliter
Faculty Loving Cup.....Farr Literary Society

SENIORS ELECTED TO PHI KAPPA PHI HONOR SOCIETY

MARCH, 1921

Christiance, DeForest Lewis.....Agriculture
Driggers, Roy Ludford.....Agricultural Education
Ford, Herbert Giddings.....Chemical Engineering
Gunn, June Rawls.....Agricultural Education
Hamilton, George Creary.....Education
Hubbard, McCoy.....Electrical Engineering
Huff, Van Ellis.....Civil Engineering
Madison, William McKee.....Law
Matlack, Marion Brooks.....Arts and Science
Norton, Oscar Harris.....Law
Stein, Maurice.....Arts and Science
Wells, William Green.....Agriculture
Williams, Leslie Dodd.....Agriculture

ROLL OF STUDENTS

1920-1921

The abbreviations used are: A. & S., College of Arts and Sciences; Ag., College of Agriculture; Ag. 4-mo., 1-yr., or 2-yr., Four Months, One-Year, or Two-Year Course, respectively, in Agriculture; Eng., College of Engineering; Grad., Graduate Student; L., College of Law; Nor., Normal School; Pre-Med., Pre-Medical Course; Sp., Special Student; T., Teachers College; V., Federal Vocational Student.

The numerals indicate the class (1, Freshman; 2, Sophomore; 3, Junior; 4, Senior) except after L., where it denotes the number of years the student has been enrolled in the College of Law.

Name	*Classification*	*Postoffice*	*County or State*
Abbott, Charles E.	Ag. 1	Ft. Green	DeSoto
Abbott, Fred P.	Ag. 1-yr.	Detroit	Michigan
Adams, Alto L.	L. 3	DeFuniak Springs	Walton
Adams, Barnett D.	Grad.	Gainesville	Alachua
Adams, Charley G.	Ag. V.	Gainesville	Alachua
Albritton, Karl B.	Ag. 1-yr.	Bee Ridge	Manatee
Alderman, J. M.	L. 2	Bradentown	Manatee
Aldridge, John F.	Ag. V.	Noma	Holmes
Alger, John W.	Ag. 2-yr.	Eustis	Lake
Allen, John E.	Eng. V.	Tampa	Hillsborough
Almond, John D., Jr.	Eng. 4	Ft. Pierce	St. Lucie
Ames, Alvin A.	A. & S. 2	St. Petersburg	Pinellas
Ames, Burton W.	Ag. 2	Kissimmee	Osceola
Anderson, Bryan G.	Pre-Med. 1	Orlando	Orange
Anderson, C. Parke	Ag. 4	Ben Avon	Pennsylvania
Anderson, Claude	Pre-Med. 1	Orlando	Orange
Anderson, Cromwell A.	L. 1	Palatka	Putnam
Angle, Joseph F.	A. & S. 1	Haines City	Polk
Armstrong, Noble B.	T. 2	Lake Butler	Bradford
Ashmore, Jack P.	Pre-Med. 1	Ben Haden	Wakulla
Atkisson, Robt. D.	Eng. 3	Crescent City	Putnam
Avera, John B.	Pre-Med. 1	Gainesville	Alachua
Babson, John C.	Sp. E. 1	Atlantic Beach	Duval
Bailey, Oliver W.	Ag. V.	Trenton	Alachua
Baker, Chas. H., Jr.	Eng. 3	Jacksonville	Duval
Baker, George F.	Nor. 1	Ft. Pierce	St. Lucie
Baker, Paul O.	Ag. 4	Gainesville	Alachua
Bange, Fred P.	A. & S. Sp.	Hanover	Pennsylvania
Barco, Claude K.	Eng. 3	Gainesville	Alachua
Barnes, John N.	Ag. V.	Jackson	Tennessee
Barnhill, Wm. B.	Ag. V.	Baker	Okaloosa

Name	Classification	Postoffice	County or State
Barrows, Dryl H.	Ag. 2-yr.	Monticello	Jefferson
Barrs, John M.	A. & S. Sp.	Jacksonville	Duval
Bartlett, Neill B.	Eng. 1	St. Cloud	Osceola
Bartscheck, Martin F.	Ag. V.	Tampa	Hillsborough
Bassett, Amos E.	Ag. V.	Gainesville	Alachua
Batson, Arthur W.	Ag. V.	Jacksonville	Duval
Battle, George C., Jr.	Eng. 2	Sorrento	Lake
Baya, George J.	L. 1	Jacksonville	Duval
Beach, Austin O.	Nor. 1	Hastings	St. Johns
Beach, Clarence H.	A. & S. 1	DeFuniak Springs	Walton
Beach, Palmer W.	Nor. 1	Hastings	St. Johns
Bearss, C. Ivan	Eng. 1	Tampa	Hillsborough
Beaty, Edward F.	Nor. 1	Jennings	Hamilton
Begg, John A.	A. & S. 1	Jacksonville	Duval
Bell, Clarence L.	A. & S. 1	Gainesville	Alachua
Bell, John J.	A. & S. 2	Brooksville	Hernando
Bemis, Frank D.	Ag. V.	Ruthton	Minnesota
Benefield, Earney	Ag. V.	Milltown	Georgia
Benjamin, Lawrence E.	Eng. Sp.	Ocala	Marion
Bennett, Eulice	Ag. V.	Jacksonville	Duval
Berg, Orville M.	A. & S. 2	Arcadia	DeSoto
Berry, Chas. D.	Ag. 1-yr., L. 1	Brunswick	Tennessee
Beugnot, John T.	Eng. V.	Sebastian	St. Lucie
Biddle, Perry H.	T. 3	DeFuniak Springs	Walton
Bie, Osmond R.	A. & S. 1, L. 1	Tampa	Hillsborough
Birk, John R.	Ag. V.	Wilson	Brevard
Bishop, Albert K.	Ag. 4	Eustis	Lake
Bishop, George L.	Eng. V.	Pensacola	Escambia
Bishop, Joseph E.	Ag. V.	Summertown	Georgia
Bivens, Wm. J.	L. 2	Tampa	Hillsborough
Black, Robert E.	A. & S. 1	Blossom	Texas
Blaha, Lloyd J.	Eng. V.	Jacksonville	Duval
Blake, Edgar S.	Pre-Med. 2, Eng. Sp.	Chipley	Washington
Blake, Julian A.	L. 1	Jacksonville	Duval
Blake, Robert M.	A. & S. 1	Ocala	Marion
Blount, John M.	Eng. 1	Tampa	Hillsborough
Blum, Paul F.	A. & S. Sp.	Gainesville	Alachua
Blume, James V.	Ag. 3	Live Oak	Suwanee
Bohrer, Jack	A. & S. 1	Tampa	Hillsborough
Bolles, Paul K.	L. 1	Oldsmar	Hillsborough
Booth, David E.	Eng. 2	St. Petersburg	Pinellas
Booth, Wm. R.	Nor. 1	Campbellton	Jackson
Boring, Elmer W.	L. 3	Waldo	Alachua
Bosman, Harold A.	Ag. 1	Jacksonville	Duval
Bostwick, Wm. M.	Eng. 2	Jacksonville	Duval
Boswell, Eric R.	Eng. 3	Inverness	Citrus
Boulware, Robt. M.	Eng. 1	Lakeland	Polk
Bowen, Reeves	T. 2	Chipley	Washington
Bowyer, Egbert N.	L. 1	Lakeland	Polk
Boyatt, Francis M.	Ag. V.	Oneida	Tennessee
Boyd, Chas. W.	A. & S. 1	Jacksonville	Duval
Boyd, James R.	A. & S. 1, L. 1	Jacksonville	Duval
Bracken, Howard M.	Nor. 2	Deerfield	Broward
Braddock, Elbert C.	Ag. V.	Crescent City	Putnam
Braddock, Heyward M.	Eng. 1	Tampa	Hillsborough
Bradshaw, Virgin M.	A. & S. 2	San Antonio	Pasco
Bratley, Homer E.	T. & Ag. 4	Miami	Dade
Brengle, Edwin M.	A. & S. 1	Tampa	Hillsborough
Brewer, John B.	Ag. V.	Greenville	South Carolina

Name	Classification	Postoffice	County or State
Bristol, Loris R.	A. & S. Sp.	Gainesville	Alachua
Britt, Jesse B.	Ag. V.	Gainesville	Alachua
Brooks, Irving C.	Ag. V.	Gainesville	Alachua
Brown, Cornelius J.	Ag. V.	Bluff Springs	Escambia
Brown, George W.	Pre-Med. 2	Lawtey	Bradford
Brown, Herbert C.	A. & S. 1	Lawtey	Bradford
Brown, Jesse C.	Ag. V.	Sopchoppy	Wakulla
Brown, John O.	L. 2	Palmetto	Manatee
Brown, Thomas N.	Ag. 1	Webster	Sumter
Brown, Thos. R.	A. & S. 2, L. 1	Arcadia	DeSoto
Bruce, Frank M.	A. & S. 1	Palatka	Putnam
Brumby, Robert H., Jr.	Ag. 2-yr.	Ancon, Canal Zone	Panama
Bryan, Needham W.	Eng. 1, Ag. 1-yr.	Monticello	Jefferson
Bullock, Wm. J.	T. 2	Arcadia	DeSoto
Bunch, George L.	Nor. 2	Pavo	Georgia
Bunnell, Maurice F.	Eng. 2	Orlando	Orange
Burdeshaw, J. Price	Pre-Med. 1	Marianna	Jackson
Burr, Richard T.	Ag. 2	Arch Creek	Dade
Burton, Robt. P.	A. & S. 2	Leesburg	Lake
Busbee, Edgar B.	A. & S. 1	Williston	Levy
Busbee, Harley M.	Ag. V.	Laurel Hill	Okaloosa
Byrd, Calhoun Y.	L. 1	Live Oak	Suwanee
Byrnes, Daniel J.	L. 2	Tampa	Hillsborough
Calhoun, George A.	Eng. 2	Pensacola	Escambia
Campbell, Herbert G.	Ag. V.	Safety Harbor	Pinellas
Campbell, Maurice T.	Eng. 1	Largo	Pinellas
Campbell, Wofford M.	T. 1	Hastings	St. Johns
Cannon, Olin P.	Eng. 1	Gainesville	Alachua
Carleton, Boyd	T. 2	Gainesville	Alachua
Carlton, Robt. A.	Ag. 2	Knights	Hillsborough
Carlton, Tullie H.	L. 2	Wauchula	DeSoto
Carn, Marshall N.	L. 1	Ocala	Marion
Caro, Albert R.	L. 2	Pensacola	Escambia
Carpenter, A. Eugene	L. 2	Orlando	Orange
Carruth, Melville	Ag. 1	Tampa	Hillsborough
Carter, Jesse F.	A. & S. V.	White Springs	Hamilton
Carter, John H., Jr.	L. 2	Marianna	Jackson
Carter, Leonard	L. 1	Lakeland	Polk
Cason, Shafter W.	T. 4	Otter Creek	Levy
Cassels, Wm. M.	Ag. V.	Bay Lake	Marion
Cassida, Neil C.	Ag. V.	Portland	Walton
Caton, Harry O.	Ag. V.	Auburn	New York
Catts, Sidney J., Jr.	L. 2	Gainesville	Alachua
Cavender, Homer L.	Eng. Sp.	Charleston	West Virginia
Cawthon, Lewis F.	A. & S. 1	DeFuniak Springs	Walton
Chadwick, Austin W., Jr.	L. 1	St. Augustine	St. Johns
Chaffin, Jeff	Grad.	Gainesville	Alachua
Chaires, Thos. P., Jr.	Pre-Med. 1	Old Town	Lafayette
Champlin, Edward A.	Eng. 1	Jacksonville	Duval
Chance, Staten H.	Pre-Med. 1	Wauchula	DeSoto
Charbonneau, Ferneau C.	Ag. 1-yr.	Haines City	Polk
Chardkoff, Aby	Pre-Med. 1	Tampa	Hillsborough
Chatham, R. Foster	Ag. 3	Arcadia	DeSoto
Chellberg, David G.	Ag. V.	Worcester	Massachusetts
Chesnut, John A.	A. & S. 1, Ag. 1	Gainesville	Alachua
Chillingworth, Richard C.	A. & S. 1	West Palm Beach	Palm Beach
Chitty, Howell B.	Pre-Med. 1	Bonifay	Holmes
Christiance, DeForest L.	Ag. 4	Cocoanut Grove	Dade
Clark, George E.	Ag. V.	Norfolk	Virginia

Name	Classification	Postoffice	County or State
Clark, Joseph S.	L. 3	St. Petersburg	Pinellas
Clark, R. Harold	L. 1	Christina	Polk
Clarke, Thos. L.	A. & S. 1	Monticello	Jefferson
Clark, Wm. B.	Nor. 1	Blountstown	Calhoun
Clayton, Bloxham L.	L. Sp.	Lloyd	Jefferson
Clayton, Edwin A.	A. & S. 1	Aucilla	Jefferson
Cleland, Clarence R.	Ag. V.	Reddick	Marion
Cloud, Daniel T.	Ag. 1, L. 1	Jacksonville	Duval
Clyat, Carl A.	Eng. 1	Ft. Pierce	St. Lucie
Coachman, Wm. M.	Ag. V.	Miami Beach	Dade
Cobb, John H.	Ag. V.	Kissimmee	Osceola
Cobb, Lawrence H.	Eng. 2	Milton	Santa Rosa
Cody, Willis J.	A. & S. 2	Crooked Lake	Polk
Coe, Arthur R.	Sp. E. 1	Miami	Dade
Coe, Ronald F.	A. & S. 2	St. Petersburg	Pinellas
Cohen, Murray	A. & S. 2	Miami	Dade
Coleman, Raymond V.	Eng. 2	Plant City	Hillsborough
Colley, Carr C.	Pre-Med. 1	Starke	Bradford
Collins, Crenshaw C.	Ag. 1	Bartow	Polk
Collins, Edward K.	Ag. V.	Madison	Wisconsin
Collins, Robert T.	Pre-Med. 1	Umatilla	Lake
Conant, Donald E.	Eng. 1	Lakeland	Polk
Connell, Chas. F.	Sp. E. 1	Winter Garden	Orange
Connell, James M.	A. & S. 1., Eng. 1	Inverness	Citrus
Conner, Francis E.	L. Sp.	Wauchula	DeSoto
Cook, Chas. E.	Eng. 2	Newberry	Alachua
Cook, Merle L.	L. Sp.	St. Petersburg	Pinellas
Cooper, Albert C.	Eng. 2	Tampa	Hillsborough
Cooper, Horace C.	Eng. 3, Ag. 1	Jacksonville	Duval
Cooper, Nelson D.	Eng. 3	Jacksonville	Duval
Cooper, Roby F.	Ag. & T. 3	Gainesville	Alachua
Copeland, Goodrich R.	A. & S. Sp.	St. Petersburg	Pinellas
Cox, J. O'Neal	A. & S. 2	Gainesville	Alachua
Coxe, Curtis C.	A. & S. 4	St. Augustine	St. Johns
Crago, Arthur	A. & S. 3	Ocala	Marion
Cress, Everett L.	Ag. V.	Mountain City	Tennessee
Crews, Stafford L.	Ag. V.	Lake Butler	Bradford
Crippen, Herbert O.	L. 1	Jacksonville	Duval
Crofton, Lemuel C.	L. 2	Chipley	Washington
Curtis, Gilbert	Eng. 3	Tampa	Hillsborough
Daffin, Mitchell J.	Pre-Med. 1	Millville	Bay
Daniels, Chas. M.	A. & S. Sp.	Plant City	Hillsborough
Daniels, Coley	Ag. V.	Kinard	Calhoun
Davies, Clyde T.	A. & S. 1	Radcliffe	Virginia
Davis, Frank M.	Ag. 2-yr.	Madison	Madison
Davis, Henry J., Jr.	Ag. 2	Quincy	Gadsden
Davis, James R.	Ag. V.	Baker	Okaloosa
Davis, Laurence W.	Eng. 1	Mulberry	Polk
Davis, Newell D.	A. & S. 4	Gainesville	Alachua
Davis, Orville R.	A. & S. 1	Miami	Dade
Davis, Robert W.	Ag. V.	DeFuniak Springs	Walton
Deaver, Fred L.	Ag. V.	Sampson City	Bradford
Delegal, Waver E.	Ag. V.	Live Oak	Suwanee
Dethe, Rexford H.	Ag. V.	Bradentown	Manatee
DeVane, Edgar E.	Ag. 2	Plant City	Hillsborough
DeWolfe, Anson B.	Eng. 3	Crescent City	Putnam
Dickson, Henry C.	Nor. 1	Lakeland	Polk
Dickson, Ray C.	T. Sp.	Gainesville	Alachua
DiMaggio, Nicholas J.	Pre-Med. 2	Tampa	Hillsborough

Name	Classification	Postoffice	County or State
Dimberline, Thos. T.	Ag. 1-yr.	Sebring	DeSoto
Divver, Paul B.	L. 1	Jacksonville	Duval
Dodson, Chas. L.	A. & S. 1	Gainesville	Alachua
Douglas, Willie D.	Eng. 2	Laurel Hill	Okaloosa
Dowdell, Richard S.	Ag. 2	Wimauma	Hillsborough
Driggers, Roy L.	Ag. & T. 4	Ft. Green	DeSoto
Drury, David A.	Ag. V.	Gainesville	Alachua
Duckworth, Robert E.	A. & S. 3	Orlando	Orange
Duke, George F.	Ag. 1	Hardeetown	Alachua
Duncan, Charles E.	L. 1	Tavares	Lake
Duncan, Kasper G.	A. & S. 3	Lake Butler	Bradford
Dunning, Milton C.	Ag. V.	Gainesville	Alachua
Dupont, Louis E.	Ag. 1	Daytona	Volusia
Durst, Bernard K.	Eng. 1	Gainesville	Alachua
Dutton, Albert W.	Ag. 1, L. 1	Gainesville	Alachua
Dyer, William J., Jr.	Ag. 3	West Palm Beach	Palm Beach
Easterlin, Leonard P.	Ag. V.	Gainesville	Alachua
Eberwine, Deane C.	Sp. E. 1	Windham	Ohio
Ebinger, Rollin J.	A. & S. Sp.	Tampa	Hillsborough
Edenfield, Lawrence	Nor. 1	Grand Ridge	Jackson
Edmunds, Henry R.	Ag. V.	Farmville	Virginia
Edrehi, Joseph M.	L. 3	Pensacola	Escambia
Edwards, Henry Coley	A. & S. 1	Tampa	Hillsborough
Edwards, Henry Leitner	A. & S. 2	Kissimmee	Osceola
Edwards, Lloyd H.	Ag. V.	Savannah	Georgia
Ekeland, Lief T.	Pre-Med. 1	Lake Wales	Polk
Ellsworth, Lloyd H.	Ag. 3	Dade City	Pasco
Ennis, John G.	Eng. 2	Tampa	Hillsborough
Etheredge, James T.	Eng. 1	DeSoto City	DeSoto
Etheridge, Walter D.	L. 1	Tavares	Lake
Farnsworth, Francis W.	Sp. E. 1	Tampa	Hillsborough
Farr, Earle D.	L. 1	Wauchula	DeSoto
Farrell, Jerome G.	Nor. 1	Chicago	Illinois
Ferguson, Thos. S.	A. & S. 3	Lake City	Columbia
Fernald, Horace J.	Ag. V. 2-yr.	Melrose	Massachusetts
Ferris, G. Floyd	A. & S. 2	Jacksonville	Duval
Fielding, Wm. S.	L. 1	Anthony	Marion
Fleming, Edward E.	L. 2	Milton	Santa Rosa
Ford, Herbert G.	Eng. 4	Tampa	Hillsborough
Franklin, James A.	L. 3	Jacksonville	Duval
Franklin, Paul G.	Eng. 2	Ft. Myers	Lee
Fred, John F.	Ag. V.	Tampa	Hillsborough
French, Walter F.	Pre-Med. 1	St. Cloud	Osceola
Friedlander, Herbert M.	A. & S. 4	Indian Rocks	Pinellas
Friedman, Jacob W.	Eng. 1	Pensacola	Escambia
Fuller, Henry	A. & S. 2	Nichols	Polk
Fuller, Landon	Eng. 2	Nichols	Polk
Garland, Lawrence A.	A. & S. 1	Plant City	Hillsborough
Garrett, Sheridan L.	Nor. 1	Milligan	Okaloosa
Gaskin, Shelby G.	A. & S. 2	Blountstown	Calhoun
Geiger, Albert J.	Ag. 2	Homestead	Dade
Geiger, John C.	A. & S. V.	Jasper	Hamilton
Geiger, Thomas J.	Ag. 2	Wellborn	Suwanee
Geralds, Jesse T.	Ag. V.	Gainesville	Alachua
Gerow, Laurence	Eng. 1	Tampa	Hillsborough
Getzen, S. Wyche	L. 3	Webster	Sumter
Gibson, Daniel N.	Ag. V.	Molino	Escambia
Gill, Burgo D.	A. & S. 4	Jacksonville	Duval
Gillen, Patrick H.	A. & S. 2	Ocala	Marion

Name	Classification	Postoffice	County or State
Gillis, Alexander A.	Eng. 2	Ponce de Leon	Holmes
Gleason, Wm. L.	L. 2	Eau Gallie	Brevard
Goldsby, Jack K.	Ag. 4	Ft. Myers	Lee
Gordon, Harry	L. 1	Miami	Dade
Gore, Fred K.	Eng. 1	Arcadia	DeSoto
Gott, Rodney H.	Ag. 2	Arcadia	DeSoto
Graham, Andrew S.	Pre-Med. 2	Tampa	Hillsborough
Graham, Angus W.	Eng. 1	Sebring	DeSoto
Gray, George W.	L. 2	Orlando	Orange
Gray, Henry L., Jr.	Pre-Med. 1	Gainesville	Alachua
Gray, Hillery C.	Ag. V.	Hawthorne	Alachua
Green, Clifford A.	Eng. V.	Fitzgerald	Georgia
Green, C. S.	L. Sp.	Pomona	Putnam
Green, Edward B.	L. 3	Ocala	Marion
Green, Osward	Eng. V.	Brunswick	Georgia
Green, Otis T.	A. & S. 1	Ocala	Marion
Green, Truman T.	A. & S. 2	Tampa	Hillsborough
Greenhut, Irvin B.	Nor. 2	Pensacola	Escambia
Gribble, James H.	Ag. 1	Arch Creek	Dade
Griffin, Edwin A.	Ag. 1	Plant City	Hillsborough
Griffin, Leslie G.	Ag. V.	Auburndale	Polk
Griffin, Wm. N.	Ag. V.	Chipley	Washington
Griffis, Bernard M., Jr.	Ag. 1-yr.	Red Bank	New Jersey
Grindstaff, James D.	Ag. V.	Johnson City	Tennessee
Gunn, Eric F.	Eng. 2	Jacksonville	Duval
Gunn, June R.	Ag. & T. 4	Gainesville	Alachua
Gunn, W. Walter	Eng. Sp.	Gainesville	Alachua
Hadsock, Frank F.	Ag. V.	Green Cove Springs	Clay
Hagan, Henry D.	Ag. V.	Trenton	Alachua
Hait, Kenneth B.	T. 1	Lynn Haven	Bay
Hall, August J.	T. Sp.	St. Augustine	St. Johns
Hall, C. Stuart	A. & S. 2	Miami	Dade
Hall, John F.	L. 2	Tallahassee	Leon
Hamilton, G. Creary	T. 4	Pace	Santa Rosa
Hamilton, Henry G.	Ag. & T. 4	Humboldt	Tennessee
Hamon, Ray L.	T. 3	Homestead	Dade
Hancock, John W.	Ag. V.	Bostwick	Putnam
Hansbrough, John H.	A. & S. 2, Ag. 2	Tampa	Hillsborough
Hansen, Kenneth K.	A. & S. 1	Tallahassee	Leon
Hardee, Charles J.	L. 2	Madison	Madison
Hardee, Robert E.	A. & S. Sp.	Gainesville	Alachua
Harris, Pete	A. & S. 2	Tampa	Hillsborough
Harris, Robert H.	A. & S. 1	Tampa	Hillsborough
Harrison, Wm. M.	Pre-Med. 1	Cottondale	Jackson
Hartman, George W.	Eng 4	Pensacola	Escambia
Harwick, Wm. H., Jr.	Sp. E. 1	Jacksonville	Duval
Hauser, Charles R.	Eng. 2	Miami	Dade
Hauser, Maurice G.	Eng. 2	Tampa	Hillsborough
Haynes, John M.	A. & S. 1	Dunnellon	Marion
Hayward, Wm. H.	Ag. V.	Kansas City	Missouri
Hebb, Homer L.	Eng. 1	Sarasota	Manatee
Heitzman, Frank, Jr.	Ag. V.	New York	New York
Helseth, Oswald L.	Eng. 1, Ag. 1	Vero	St. Lucie
Henderson, Edward C.	Ag. V.	Kinards	South Carolina
Henderson, George L.	A. & S. 2	Tallahassee	Leon
Henderson, James W.	Eng. 1	Plant City	Hillsborough
Henley, T. Davis	A. & S. 2	Inverness	Citrus
Hendry, Friebele W.	Pre-Med. 1	St. Petersburg	Pinellas
Herb, Charley B.	Ag. V.	Lake City	Columbia

Name	Classification	Postoffice	County or State
Heuck, Carl P.	Ag. 4	Vero	St. Lucie
Hiatt, Clifford R.	Ag. 2	Gainesville	Alachua
Hinckley, Elmer D.	A. & S. 1	Jacksonville	Duval
Hitchcolk, George R.	Sp. E. 1, L. 1	Jacksonville	Duval
Hodges, George H.	Eng. Sp.	Christmas	Orange
Hogart, Leeson A.	Eng. 3	Stuart	Palm Beach
Holden, Wm. F.	A. & S. 2	Hawthorne	Alachua
Holland, Hurley W.	L. 2	Pensacola	Escambia
Holley, Franklin N., Jr.	A. & S. 3	Apalachicola	Franklin
Hollinrake, Allen T.	A. & S. 2	Gainesville	Alachua
Hollingsworth, Harry L.	Nor. 1	Jacksonville	Duval
Holman, Christopher B.	Ag. V.	Quincy	Gadsden
Hooks, Lloyd C.	L. 1	Lakeland	Polk
Horne, Wm. B.	A. & S. 1	St. Petersburg	Pinellas
Hoskins, Roy B.	A. & S. 2	Tampa	Hillsborough
Hough, Hugh R.	Ag. 2	Gretna	Gadsden
Howard, Girdie H.	Pre-Med. 1	Winter Haven	Polk
Howard, Henry G.	L. 1	Woodville	Leon
Howard, Walter G.	Pre-Med. 1	Winter Haven	Polk
Hubbard, Donald	Eng. 2	Terra Ceia	Manatee
Hubbard, Louis J.	Sp. E. 1	Lawtey	Bradford
Hubbard, McCoy	Eng. 4	Terra Ceia	Manatee
Hubbard, Paul S. L.	A. & S. 1	St. Petersburg	Pinellas
Hudson, Tom A.	Ag. V.	Vernon	Washington
Huff, Van E.	Eng. 4	Miami	Dade
Hughes, Jos. G.	Nor. 1	Cedar Keys	Levy
Hughes, Kernel	Ag. 1-yr.	Haines City	Polk
Hughes, Randall H.	T. 3	Ponce de Leon	Holmes
Huie, Gordon C.	A. & S. 1, L. 1	Haines City	Polk
Huie, James H.	A. & S. I	Haines City	Polk
Hull, Benjamin P.	Ag. V.	Jacksonville	Duval
Hull, Willie P.	Ag. V.	Pinelevel	DeSoto
Hume, Edward G.	Sp. E. 1	Jacksonville	Duval
Hunt, Deeley A.	Ag. V.	Cincinnati	Ohio
Hunter, Frank R.	A. & S. 2	Fort Myers	Lee
Hurst, John B.	A. & S. 3	Miami	Dade
Igou, Douglas R.	A. & S. I, Ag. 1	Eustis	Lake
Jackson, John L.	Sp. E. 1	Largo	Pinellas
James, Reese C.	Ag. 1	Gainesville	Alachua
Jeacle, Wm.	T. 3	Mandarin	Duval
Jennings, Benj. L.	L. 1	Okeechobee	St. Lucie
Jennings, Lester W.	L. 1	Okeechobee	St. Lucie
Jeremiassen, Holger K.	Eng. 3	Miami	Dade
Johns, Artis C.	Ag. V.	Marietta	Duval
Johnson, Charles W.	L. 1	Largo	Pinellas
Johnson, Clifton D.	A. & S. 4, L. 1	Clearwater	Pinellas
Johnson, Henry C.	T. 3	Holt	Okaloosa
Johnson, Richard G., Jr.	A. & S. 1	Tallahassee	Leon
Johnson, Victor F.	Eng. 1	Key West	Monroe
Johnston, George L.	A. & S. 1	Bartow	Polk
Jones, Earle E.	A. & S. 1	Ft. Myers	Lee
Jones, Harry N. S.	A. & S. 1	Key West	Monroe
Jones, J. McHenry	L. 1	Pensacola	Escambia
Jones, Moses Z.	Ag. V.	Laurel Hill	Okaloosa
Jones, T. Allan	Nor. 2	Sanford	Seminole
Jones, W. Eugene	Ag. 1	Bartow	Polk
Juster, Isidore L.	Eng. 1	Tampa	Hillsborough
Juve, Raynold H.	Ag. 2-yr.	Oslo	St. Lucie
Kail, Claude	Ag. V.	Gainesville	Alachua

Name	Classification	Postoffice	County or State
Keen, David W.	A. & S. 1	Jacksonville	Duval
Keen, J. Velma	L. 2	Marianna	Jackson
Keen, Wm. H.	Eng. 1	Bradentown	Manatee
Kehoe, Jack	L. 1, Ag. 4-mo.	Pensacola	Escambia
Kelly, John G.	Ag. 4	Gainesville	Alachua
Kennan, T. Floyd	A. & S. 2, T. 2	Hilliard	Nassau
Kennedy, James	Nor. 1	Jacksonville	Duval
Kilbourne, James F.	Nor. 2	Carrabelle	Franklin
Kilgore, Fred	Eng. 2	Clearwater	Pinellas
King, Harry E.	L. 1	White Springs	Hamilton
King, Walter R.	A. & S. 2	Ft. Pierce	St. Lucie
Kinnon, Benjamin F.	Eng. V.	Jacksonville	Duval
Kirkland, Harvey	Ag. V.	Loughman	Polk
Kitchen, Harold M.	Sp. E. 1	Jacksonville	Duval
Klock, J. Harold	A. & S. 3	Orlando	Orange
Knight, Daniel B.	Eng. 4	Bunnell	St. Johns
Knight, Eury M.	L. 1	Tampa	Hillsborough
Knight, Marion B.	L. 1	Blountstown	Calhoun
Knight, Richard E.	Ag. 3	Tampa	Hillsborough
Kolbe, Ralph W.	Ag. 4-mo.	Loraine	Ohio
Koonce, Claude L.	Ag. V.	Coleman	Sumter
Koontz, Harry I.	Ag. V.	South Fork	Pennsylvania
Kraus, Lawrence J.	L. 1	Elwood City	Pennsylvania
Kraus, Sidney	L. 1	Elwood City	Pennsylvania
LaBarbara, Jos.	Ag. V.	Asheville	North Carolina
Ladd, Wm. P., Jr.	Eng. 2	DeLand	Volusia
Lamons, Albert B.	N. 2	Gainesville	Alachua
Lane, Dave	Ag. V.	Macon	Georgia
Lang, David	Pre-Med. 1	Trenton	Alachua
Larsen, Willie D.	Ag. V.	Cantonment	Escambia
Larson, Carl	Ag. V.	Ft. Lauderdale	Broward
Lee, Homer B.	A. & S. 1	Melrose	Alachua
Lee, John T., Jr.	Eng. V.	Sanford	Seminole
Leffers, Herman	Ag. 2-yr.	Ft. Myers	Lee
Leigh, Daniel B.	Nor. 1	Coleman	Sumter
Leisher, Daniel L.	Eng. 3	Wabasso	St. Lucie
Leiland, Paul E.	Eng. 2	St. Petersburg	Pinellas
Lennard, Oscar D.	Pre-Med. 1	Ft. Pierce	St. Lucie
Leonard, Samuel W.	Nor. 2	Blountstown	Calhoun
Lester, Clifford J.	Ag. 1	Kissimmee	Osceola
Lewis, Edward C., Jr.	A. & S. 1	Marianna	Jackson
Liddon, John W.	L. 3	Marianna	Jackson
Lindelie, Sam'l O.	A. & S. 2	St. Petersburg	Pinellas
Lindsay, Laurence	Ag. V.	Milton	Santa Rosa
Lingle, Glenn	Ag. 1	Sanford	Seminole
Linhart, Wilkins	Eng. 1	Tampa	Hillsborough
Link, Carl T.	Ag. & T. 3	Orlando	Orange
Link, Harold H.	Ag. 2	Orlando	Orange
Little, Robert G.	L. 1	Jacksonville	Duval
Lohmeyer, Randolph C.	L. 2	Jacksonville	Duval
Longee, Nelson C.	Eng. 1	DeLand	Volusia
Loomis, Horace E.	A. & S. 1	Tampa	Hillsborough
Lourcey, Leo	Ag. V.	South Jacksonville	Duval
Lowery, Alva E.	Ag. V.	Bagdad	Santa Rosa
Lundberg, Geo. S.	Ag. 2-yr.	Winter Haven	Polk
Lyman, Ralph T.	L. 1	West Palm Beach	Palm Beach
McAlexander, Watson L.	Eng. Sp.	Sanford	Seminole
McAlpin, Joseph W.	Ag. 2-yr.	White Springs	Hamilton
McBrayer, Reuben A.	Pre-Med. 2	Quincy	Gadsden

Name	Classification	Postoffice	County or State
McBride, Wm. H.	Ag. 3	Seville	Volusia
McCall, Frank	Ag. V.	Eustis	Lake
McCallum, Kingsley A.	Sp. E. 1	Jacksonville	Duval
McCaskill, Malcolm S.	A. & S. 1	Perry	Taylor
McClain, Howard E.	A. & S. 2	Gainesville	Alachua
McDavid, Robt. H.	Pre-Med 1, Ag. 1	Hinson	Gadsden
McDonald, Harrison H.	L. 1	Gainesville	Alachua
McDonald, Jackson H.	Eng. 3	Moore Haven	DeSoto
McDonald, Raemond E.	A. & S. 1	Tampa	Hillsborough
McDowell, David F.	A. & S. 1	Panama City	Bay
McGlamery, John W.	Ag. Sp.	Bradentown	Manatee
McKey, John D.	Eng. 4	Plant City	Hillsborough
McKey, Wallace A.	Eng. 4	Plant City	Hillsborough
McKillop, Ian H.	L. 2	Bartow	Polk
MacKinnon, Francis T.	Ag. 2	Marianna	Jackson
McLane, Eldridge F.	T. 3	Greensboro	Gadsden
McMullen, Chester B.	L. 1	Largo	Pinellas
McVickers, Jos. W.	T. 1	Chipley	Washington
Madison, Wm. M.	L. 3	Jacksonville	Duval
Magill, Jos. W.	Eng. V.	Grand Crossing	Duval
Mahn, Ralph W.	Ag. V.	Melrose	Massachusetts
Mahannah, Wade D.	Eng. 2	Ft. Lauderdale	Broward
Mahoney, Wm. H.	Ag. 4	Leesburg	Lake
Maines, John E., Jr.	A. & S. 3	Lake Butler	Bradford
Mallory, Edmund C.	Eng. V.	St. Petersburg	Pinellas
Maloy, Glenn F.	Eng. 1	Bradentown	Manatee
Malphurs, Coey	Eng. 1	High Springs	Alachua
Malphurs, Ojus	Eng. 1	High Springs	Alachua
Mansour, Fred F.	A. & S. 1	Jacksonville	Duval
Markham, J. Henson	A. & S. 1	Gainesville	Alachua
Marshall, Frederick L.	Ag. 1, L. 1	Lake City	Columbia
Marsicano, Ralph A.	L. 1	Tampa	Hillsborough
Martell, Grant A.	Ag. 1	Fellsmere	St. Lucie
Martin, Malcolm W.	A. & S. 1	Quincy	Gadsden
Martinez, Mario E.	Pre-Med. 1	Key West	Monroe
Mason, Reuben M.	A. & S. 1	Sanford	Seminole
Massey, Frank M.	Ag. 1	Dade City	Pasco
Massey, Herbert S.	A. & S. 3	Dade City	Pasco
Matchett, Calvin J.	Ag. V.	Interlachen	Putnam
Mathews, Edwards L.	Ag. 2	Bartow	Polk
Mathis, T. Otis	A. & S. 1	Bonifay	Brevard
Matlack, Marion B.	A. & S. 4	Sorrento	Lake
Meisch, Edmund W.	Ag. 1	Sanford	Seminole
Mellor, Frederick H.	L. 3	Jacksonville	Duval
Mellor, John W.	Eng. 2	Jacksonville	Duval
Melton, James E.	A. & S. 1	Ocala	Marion
Melton, John F.	Ag. V.	Tampa	Hillsborough
Merrin, James F.	A. & S. 2	Plant City	Hillsborough
Merrin, Joe K.	Eng. 1	Plant City	Hillsborough
Merchant, Harry M.	A. & S. 4	Gainesville	Alachua
Meyer, Cecil	Ag. V.	Lutz	Hillsborough
Mickler, Maynard	Eng. 1	Ponce de Leon	Holmes
Mickler, Peter J.	Ag. V.	Arcadia	DeSoto
Middleton, Wm. S., Jr.	A. & S. 1	Pomona	Putnam
Milam, Geo. W.	A. & S. 3	Jacksonville	Duval
Miller, Chas. R.	A. & S. 1	Graceville	Jackson
Miller, Earle M.	A. & S. Sp., L. 1	Haines City	Polk
Miller, R. Glover	Sp. E. 1	Jacksonville	Duval
Millican, Edward W., Jr.	Ag. 3	Waldo	Alachua

Name	Classification	Postoffice	County or State
Milliken, F. L. S.	Ag. 1-yr.	Tampa	Hillsborough
Mills, Fred U.	Sp. E. 1	Monticello	Jefferson
Milton, Homer V.	Sp. E. 1	Marianna	Jackson
Milton, John	A. & S. 1	Marianna	Jackson
Mink, H. Carson	Nor. 1	Winter Garden	Orange
Miro, Carlos A.	Ag. 2-yr.	David, Chiriqui	Panama
Mobley, Ralph H.	Pre-Med. 1	Dade City	Pasco
Monroe, C. Ivan	Eng. 1	Tallahassee	Leon
Moore, Alfred T.	Nor. 1	Arcadia	DeSoto
Moore, Ellis	T. 1	Milligan	Okaloosa
Moore, J. Sherman	A. & S. 1, Ag. 1	Sanford	Seminole
Moorhead, James R.	Eng. 4	Ocala	Marion
Morgan, Chas. E.	A. & S. 3	Miami	Dade
Moss, Daniel R.	A. & S. Sp., L. 1	Jacksonville	Duval
Moul, Horace C.	Eng. Sp.	Hanover	Pennsylvania
Murphy, Edwin T.	Ag. V.	Madison	Madison
Musselwhite, Wm.	Ag. 2-yr.	Homestead	Dade
Myers, Willard L.	A. & S. 1	Chipley	Washington
Nagle, Levi M.	Ag. V.	Interlachen	Putnam
Nelson, Clarence W.	T. 2	Titusville	Brevard
Nichols, Cecil H.	Ag. & T. 4	Pinellas Park	Pinellas
Norton, Oscar H.	L. 3	Tampa	Hillsborough
Oberholtzer, J. Van	A. & S. 2	Emeralda	Lake
O'Bryant, Horace	T. 2	Oxford	Sumter
O'Connell, John B.	Eng. V.	Savannah	Georgia
Odom, Emery S.	Ag. 2	Munson	Santa Rosa
Ogletree, Clarence M.	Ag. V.	Miami	Dade
Oldham, Leslie M.	Nor. 2	Jacksonville	Duval
Otto, Joseph	Eng. Sp.	Key West	Monroe
Otto, Thos. O.	A. & S. 4	Key West	Monroe
Ormsby, Aubrey C.	Ag. 1	Larkins	Dade
Osgathorp, Holland L.	T. Sp.	Winslow	Indiana
Padgett, Chas.	Ag. V.	Darlington	Walton
Padgett, James L.	Sp. E. 1	Crescent City	Putnam
Parker, Francis W.	A. & S. 2	Tampa	Hillsborough
Paschal, George R., Jr.	A. & S. 1	Jacksonville	Duval
Patrick, John W.	Ag. V.	Umatilla	Lake
Patterson, Chas. E.	Ag. 2-yr.	Muscogee	Escambia
Patton, W. Yerger	Eng. Sp.	Gainesville	Alachua
Paul, Frank C.	A. & S. 2	Tampa	Hillsborough
Peacock, S. Clarence	L. 3	Tampa	Hillsborough
Peaden, Porter L.	T. 2	Red Rock	Santa Rosa
Pearce, John E.	Nor. 2	Newberry	Alachua
Pendarvis, L. T.	Nor. 2	Blountstown	Calhoun
Pender, Marmaduke S.	Pre-Med. 2	Sneads	Jackson
Pepper, Wm. M., Jr.	Eng. 1	Gainesville	Alachua
Perkins, Ralph	Eng. 2	Pine Castle	Orange
Perry, Carl E.	Ag. Sp.	Gainesville	Alachua
Perry, Columbus W.	Ag. V.	Rochelle	Alachua
Perry, Henry, Jr.	Eng. 1	Wildwood	Sumter
Peterson, Walter S.	Ag. V.	Brooklyn	New York
Pfeiffer, Chas. A.	Eng. 4	Miami	Dade
Pfeil, Walter R.	Ag. V.	Lowell	Marion
Pheil, Abram L.	L. 1	St. Petersburg	Pinellas
Phillips, I. W., Jr.	A. & S. 1	Tampa	Hillsborough
Philpot, Henry R.	L. Sp.	Bell	Alachua
Phyfer, Sisco K.	A. & S. 2	New Albany	Mississippi
Pickett, Wilbur C.	L. 1	Wilmore	Kentucky
Pierce, James L.	Pre-Med. 2	Marianna	Jackson

Name	Classification	Postoffice	County or State
Pierce, Robt. S.	A. & S. 1	Marianna	Jackson
Pipkin, Bunyan	Ag. 3	Lakeland	Polk
Plummer, John B.	Ag. V.	Asheville	North Carolina
Polk, Edgar B.	Ag. V.	Seville	Volusia
Pomeroy, E. Frank, Jr.	A. & S. 1	Jacksonville	Duval
Pomeroy, Stewart L.	Eng. 1	Jacksonville	Duval
Pomeroy, W. Harold	Ag. 2-yr.	Orlando	Orange
Potter, Anderson H.	Pre-Med. 1	Leesburg	Lake
Preece, Richard, Jr.	Eng. 1	St. Petersburg	Pinellas
Price, Carlton G.	A. & S. 1	West Palm Beach	Palm Beach
Price, Roland M.	Ag. V.	Lake Butler	Bradford
Prince, Wyman W.	Ag. V.	Minneapolis	Minnesota
Pryor, George W.	Ag. V.	Mary Esther	Okaloosa
Quinan, Edward B.	L. 3	Miami	Dade
Raa, Bertel N.	A. & S. 4	Tallahassee	Leon
Rabon, Warren F.	Ag. V.	Chipley	Washington
Rambo, David A.	Sp. E. 1	Orlando	Orange
Ramsey, Louis R.	T. 1	Warrington	Escambia
Rane, Ainsworth	Ag. 1	West Palm Beach	Palm Beach
Redman, Russell P.	Eng. 3	Ft. Lauderdale	Broward
Reed, Leonard M.	Sp. E. 1	Lakeland	Polk
Regero, Anthony	A. & S. 3	Tampa	Hillsborough
Regero, Chas. J.	A. & S. 2	Tampa	Hillsborough
Regester, Elvyn A.	Ag. V.	Gainesville	Alachua
Revels, Julian V.	Nor. 1	Florahome	Putnam
Reynolds, John R.	Eng. V.	Damascus	Georgia
Rhodes, B. Fred	Ag. 2-yr.	Woodville	Leon
Rhudy, Rob R.	L. 1	Gainesville	Alachua
Richards, W. Francis	Ag. 1-yr.	Ft. Pierce	St. Lucie
Richbourg, Lance C.	Ag. 3	Crest View	Okaloosa
Roach, Spencer	Pre-Med. 2	High Springs	Alachua
Robbins, Milton E.	A. & S. 1	Miami	Dade
Roberson, Henry L.	Ag. V.	Ocala	Marion
Roberts, Edgar R.	Eng. 1	Charlotte Harbor	DeSoto
Roberts, Hugh	Eng. 1	Miami	Dade
Robinson, Paschal E.	Ag. V.	Laurel Hill	Okaloosa
Robinson, Winthrop M.	Pre-Med. 1	Tallahassee	Leon
Rogers, Wieland W.	Pre-Med. 2	Jacksonville	Duval
Rose, Alfred P.	Ag. V.	San Antonio	Texas
Rosenhouse, Moses H.	L. 2	Milton	Santa Rosa
Rowell, Nelson D.	A. & S. 1	Cottondale	Jackson
Royer, John W.	Ag. 1	Roanoke	Virginia
Russell, Fordyce M.	Ag. 2-yr.	Sanford	Seminole
Rutledge, Ernest	L. 1	Brooksville	Hernando
St. John, Newton D.	A. & S. 1	Daytona Beach	Volusia
Sale, Thomas D., Jr.	A. & S. 3	Tallahassee	Leon
Sampaio, Jose de	Eng. 4	Sao Paulo	Brazil
Sample, Adrian M.	A. & S. 1	Ft. Pierce	St. Lucie
Sanders, Marcus E.	Eng. 2	Trenton	Alachua
Sanford, Charlie E.	Ag. 2-yr.	Plant City	Hillsborough
Sapp, Fred W.	T. 1	Chipley	Washington
Sauls, Chas. T.	A. & S. 1	Largo	Pinellas
Saunders, Julian L.	L. Sp.	Lloyd	Jefferson
Savage, Chas. A., Jr.	L. 3	Ocala	Marion
Savage, Gordon H.	Ag. V.	Miami	Dade
Scarborough, Chaffee A.	Eng. 1	White Springs	Hamilton
Schabinger, Ernest M.	Ag. 2	Delray	Palm Beach
Schabinger, John E.	Nor. 1	Delray	Palm Beach
Schatz, Andrew B.	Ag. V.	Washington	District of Columbia

Name	Classification	Postoffice	County or State
Schubert, Walter M.	Eng. 1	Gainesville	Alachua
Schwaen, Jack L.	Eng. 1, A. & S. 1	Tampa	Hillsborough
Schwartz, Karl W.	Pre-Med. 2	Miami	Dade
Scofield, Chas. B.	Ag. 2-yr.	Winter Haven	Polk
Scofield, Orion L.	L. 1	Inverness	Citrus
Sconiers, Frank H.	Ag. V.	DeFuniak Springs	Walton
Scott, Fred F.	L. 1	Melbourne	Brevard
Scott, Ivan W.	Eng. 3	Dunkirk	New York
Scott, John P.	Nor. 1	Lake City	Columbia
Scotten, Rawley W.	A. & S. 1	Gainesville	Alachua
Scruggs, Sigsbee L.	L. 3	Gainesville	Alachua
Selby, George W.	Sp. E. 1	Oldsmar	Hillsborough
Settle, Forrest L.	Ag. V.	Cantonment	Escambia
Sharpley, John H.	Pre-Med. 1	Key West	Monroe
Shearer, James R.	Ag. V.	Rowell	Hernando
Sheen, Wm. F.	L. 1	Palm Beach	Palm Beach
Shepard, Walter C.	Pre-Med. 1	Bagdad	Santa Rosa
Sheppard, Richard H.	A. & S. 1	Tampa	Hillsborough
Sherman, John S.	Ag. 3	Miami	Dade
Shockney, Jesse C.	A. & S. 1	DeFuniak Springs	Walton
Shores, Robert	Ag. V.	Round Lake	Jackson
Short, Earl N.	Sp. E. 1	Tampa	Hillsborough
Sias, Richard A.	Eng. 1	Orlando	Orange
Simmons, Andrew C.	Eng. 3	Jacksonville	Duval
Simmons, G. Ballard	T. 2	Ponce de Leon	Holmes
Simmons, Ralph A.	Ag. 2-yr.	Jacksonville	Duval
Simons, Enos R., Jr.	Nor. 1	Philadelphia	Pennsylvania
Simpson, John M. B.	A. & S. 1	Kissimmee	Osceola
Singletary, Henry R.	Eng. 1	Kissimmee	Osceola
Skornschek, Frank J.	Ag. 2-yr.	Pinelevel	DeSoto
Smith, Alfred G.	A. & S. 1	Wauchula	DeSoto
Smith, Bunnie O.	Pre-Med. 1	Blountstown	Calhoun
Smith, Earl L.	Eng. V.	Ocala	Marion
Smith, English B.	Ag. V.	Madison	Madison
Smith, Joseph G.	Ag. V.	Tignall	Georgia
Smith, John H.	Ag. V.	Gainesville	Alachua
Smith, Oliver W.	Ag. V.	Rowland	North Carolina
Smith, Richard M.	Ag. 2	Jacksonville	Duval
Smith, Robert K.	Ag. 2-yr.	Gainesville	Alachua
Smith, Wm. L.	Ag. 4-mo.	Athens	Georgia
Smith, Wm. Wall	A. & S. 1, Ag. 1	Tampa	Hillsborough
Smith, Wm. Warner	Eng. Sp.	Gainesville	Alachua
Sobol, Meyer W.	L. Sp.	Gainesville	Alachua
Sollee, Arthur N.	Eng. 3	South Jacksonville	Duval
Spain, Frank O., Jr.	L. 2	Gainesville	Alachua
Sparkman, Amos L.	Ag. V.	Plant City	Hillsborough
Spear, Albert L.	Nor. 1	Tallahassee	Leon
Spencer, Garland W.	L. 2	Sanford	Seminole
Spoto, Angelo P.	Pre-Med. 1	Tampa	Hillsborough
Staley, Crawford N.	Pre-Med. 1	St. Petersburg	Pinellas
Stanley, George B.	A. & S. 2	Jacksonville	Duval
Stanley, G. Thomas	Ag. V.	Tampa	Hillsborough
Stanley, Richardson L.	A. & S. 2	Jacksonville	Duval
Stansfield, Harold C.	Eng. 2	Bradentown	Manatee
Starling, Willard W.	A. & S. 1	Panama City	Bay
Steckert, William H.	Eng. 1	Gainesville	Alachua
Stein, Maurice	A. & S. 4	Tampa	Hillsborough
Stephens, Richard C.	Eng. V.	Miami	Dade
Stephens, Walter H.	Ag. V.	Gainesville	Alachua

Name	Classification	Postoffice	County or State
Stevens, Hugh Q.	A. & S. 2	St. Augustine	St. Johns
Stewart, Joseph W.	Ag. V.	Mayodan	North Carolina
Stewart, Lloyd D.	Ag. 2	Bradentown	Manatee
Still, James E.	A. & S. 1	Sebring	DeSoto
Stinson, Paul W.	Eng. Sp.	Tarpon Springs	Pinellas
Stokes, Frank C.	Ag. V.	Brooker	Bradford
Stokes, Wade H.	Eng. V.	Laurel Hill	Okaloosa
Storm, Francis F.	Ag. I, L. 1	Gainesville	Alachua
Strickland, Judson W.	Ag. 1	Homestead	Dade
Strom, Samuel M.	Ag. 2-yr.	Juniper	Gadsden
Strube, Wm.	Ag. V.	Jacksonville	Duval
Stuart, Norton A.	Pre-Med. 1	Palm Beach	Palm Beach
Sullivan, Millard C.	Ag. V.	Pine Castle	Orange
Sullivan, Wm. B.	Ag. V.	McAlpin	Suwannee
Summers, Charnelle H., Jr.	Eng. 1	Kissimmee	Osceola
Summitt, Robert E.	Pre-Med. 1	Orlando	Orange
Sumner, Francis M.	Eng. 1	St. Petersburg	Pinellas
Swanson, Robt. M.	Eng. 2	Gainesville	Alachua
Swartz, Frederick G.	Eng. V.	Gainesville	Alachua
Sweat, Carroll D.	Pre-Med. 1	Jacksonville	Duval
Sweat, Everett D.	Ag. V.	Green Cove Springs	Clay
Sweeney, Paul J.	A. & S. Sp. T. 2	New Castle	Pennsylvania
Takach, Carl A.	Ag. V.	Gainesville	Alachua
Tan, Len B.	Ag. 4	Canton	China
Taylor, Charles A.	Ag. V.	Miccosukee	Leon
Taylor, J. Clagett	A. & S. 1	Sebring	DeSoto
Taylor, Jelks	Eng. 2	Arcadia	DeSoto
Taylor, James H.	L. Sp.	Jacksonville	Duval
Tatom, Louis J.	Eng. 3	Pensacola	Escambia
Telford, Sam R.	Nor. 1	Winter Haven	Polk
Terry, Royall P.	L. 2	Jacksonville	Duval
Theed, Clement L.	L. 1	Miami	Dade
Thomas, Brantley F.	Ag. V.	Glen St. Mary	Baker
Thomas, Clarence S.	Eng. 4	Gainesville	Alachua
Thomas, Fred J., Jr.	Nor. 2	St. Augustine	St. Johns
Thomas, Irvin G.	Eng. 2	Ft. Myers	Lee
Thomasson, Ferdinand W.	A. & S. 2	St. Petersburg	Pinellas
Thompson, Laudious L.	A. & S. 2	Tarpon Springs	Pinellas
Thompson, Paul F.	Eng. 1	Lake Worth	Palm Beach
Thompson, Wm. E.	L. 2	Tampa	Hillsborough
Thornton, Burwell	L. Sp.	Gainesville	Alachua
Thrasher, Barton E.	Pre-Med. 2	Micanopy	Alachua
Thrift, Mack D.	Ag. V.	Winokur	Georgia
Tiller, Will M.	Ag. 2	Kissimmee	Osceola
Tillis, Harry L.	Ag. V.	Starke	Bradford
Tillman, Rollie	Ag. 2	Lake Wales	Polk
Tillman, Sidney F.	Ag. V.	Gainesville	Alachua
Tillman, Walter M.	Ag. 3	Lake Wales	Polk
Todd, Leonard	Eng. 3	Ocala	Marion
Tolbert, Horace L.	T. 3	Ft. White	Columbia
Tomlinson, John P., Jr.	A. & S. 3	Dunnellon	Marion
Toms, Willard H., Jr.	Ag. V.	Waycross	Georgia
Tooke, Wm. L.	A. & S. 2	Floral City	Citrus
Traxler, B. Dell	A. & S. 2	Alachua	Alachua
Treadwell, John K.	A. & S. 3	Arcadia	DeSoto
Trice, Ralph S.	Ag. V.	Hawkinsville	Georgia
Trimble, Robert C., Jr.	Eng. 1	Kissimmee	Osceola
Tucker, David J.	Ag. V.	Williamston	South Carolina
Turner, DeWitt C.	Pre-Med. 1	Largo	Pinellas
Turner, Ernest P.	T. 1	Trenton	Alachua

Name	Classification	Postoffice	County or State
Turner, Roan J.	Ag. V.	Lake Butler	Bradford
Tyler, Raymond W.	Eng. 1, Ag. 1	Largo	Pinellas
Tyre, Jesse S.	Eng. V.	Jessup	Georgia
Ulmer, Roland J.	Ag. 2-yr.	Largo	Pinellas
Urquhart, Henry E.	Ag. V.	Milton	Santa Rosa
Van Cleef, Clinton B.	Ag. 1	Glenwood	Volusia
Vandergrift, John H.	L. 1	Jacksonville	Duval
Villacres, Luis A.	Ag. 2-yr.	Guayaquil	Ecuador
Vining, E. Clyde	L. 3	Wildwood	Sumter
Von Cannon, Chas. H., Jr.	L. 1	Spencer	North Carolina
Waldo, George S.	A. & S. Sp.	Gainesville	Alachua
Walden, Dow G.	Ag. V.	Plant City	Hillsborough
Walker, Clifford L.	Ag. 3	Sanford	Seminole
Walker, Frank E.	A. & S. 1	St. Petersburg	Pinellas
Walker, Judson B.	T. 3	Baker	Okaloosa
Wallace, James G.	T. 1	Williston	Levy
Wallis, Thomas H.	A. & S. 1	Ocala	Marion
Walsh, Frank S.	Ag. V.	Gramingham	Massachusetts
Walsh, John E.	L. Sp.	Gainesville	Alachua
Wamble, James B.	Ag. V.	Pittsboro	North Carolina
Ward, Dewey H.	Ag. V.	Round Lake	Jackson
Ward, Gilbert	Ag. V.	Gainseville	Alachua
Ward, Wm. G.	L. 1	Miami	Dade
Warnock, Kenneth T.	A. & S. 3, L. 1	Jacksonville	Duval
Warnock, Roy N.	Nor. 1	Oxford	Sumter
Warren, Edgar D.	A. & S. Sp., L. Sp.	Tampa	Hillsborough
Warren, Edwin B.	A. & S. 1	DeFuniak Springs	Walton
Watkins, Joseph N.	Eng. 4	Key West	Monroe
Weatherwax, Olustee K.	Eng. 1	Tampa	Hillsborough
Webb, Daniel B.	Eng. 1	Oakland	Orange
Webber, J. Milton	A. & S. Sp.	Hartsville	South Carolina
Weedon, R. Frederick	A. & S. 4	Gainesville	Alachua
Weinman, Louis F.	Ag. 1-yr.	Ben Avon	Pennsylvania
Wells, Joel R., Jr.	A. & S. 2, T. 2	Panama City	Bay
Wells, Lorenzo A.	A. & S. 1	O'Brien	Suwanee
Wells, Wm. G.	Ag. 4	City Point	Brevard
Wesley, Herman F.	Ag. V.	Gainesville	Alachua
Wesson, Leonard A.	Eng. 2	Ocala	Marion
West, T. Franklin, Jr.	A. & S. 2	Tallahassee	Leon
Whidden, John W.	A. & S. 1	Arcadia	DeSoto
Whidden, Wm. B.	Ag. V.	Arcadia	DeSoto
White, Alec	Ag. 2	Tampa	Hillsborough
White, Frank G.	Eng. 1, L. 1	Newberry	Alachua
White, Joseph S.	L. 1	Gainesville	Alachua
White, Kinnon R.	Eng. V.	Muscogee	Escambia
White, V. Keith	Sp. E. 1	Brooksville	Hernando
Whitehurst, Murray C.	L. Sp.	Wauchula	DeSoto
Whitehurst, Otis C.	L. Sp.	Wauchula	DeSoto
Wicker, Walter C.	Ag. 2-yr.	Sebring	DeSoto
Wiggins, Fletcher E.	Eng. V.	Marianna	Jackson
Wiggins, Hugh H.	Ag. V.	Arch Creek	Dade
Wiig, Howard E.	Ag. 1	Wahpeton	North Dakota
Williams, Angus D.	A. & S. 1	Graceville	Jackson
Williams, Ben M.	Ag. V.	Hernando	Citrus
Williams, Chas., Jr.	Sp. E. 1	Tallahassee	Leon
Williams, D. Everett	T. 3	Williston	Levy
Williams, Harry G.	A. & S. 1	Tampa	Hillsborough
Williams, Irvine D.	Eng. 2	Tampa	Hillsborough
Williams, Josiah A.	Ag. V.	Tallahassee	Leon
Williams, James M.	A. & S. 1	Brownville	Hernando

Name	Classification	Postoffice	County or State
Williams, John E.	A. & S. 2	Clermont	Lake
Williams, John L.	Pre-Med. 1	Tallahassee	Leon
Williams, John F., Jr.	Ag. 3	Monticello	Jefferson
Williams, Leslie D.	Ag. 4	Evansville	Indiana
Williams, Oliver J.	Eng. 2	Pensacola	Escambia
Williams, Raburn H.	Pre-Med. 1	Alachua	Alachua
Williams, Vernon G.	Ag. V.	Cantonment	Escambia
Williams, Walter S.	A. & S. 1	Lake City	Columbia
Willson, E. Bennett, Jr.	A. & S. 2	St. Petersburg	Pinellas
Wilsky, Chas. R.	Eng. Sp.	Tampa	Hillsborough
Wilson, Elwood L.	Eng. 2	Jacksonville	Duval
Wilson, Horace S.	Ag. 2	Starke	Bradford
Wilson, Raine	Ag. V.	Dukes	Bradford
Wilson, Robert M.	Eng. 1	Jacksonville	Duval
Wilson, Verne W.	Ag. 1	Kissimmee	Osceola
Winfield, James A.	Eng. 2	O'Brien	Suwanee
Winter, Thurston P.	A. & S. 3	Oakland	Orange
Wolfe, Floyd E.	A. & S. 1	Gainesville	Alachua
Wolfenden, Wm. L.	Eng. 2	Palatka	Putnam
Womeldorf, Jas. F.	Ag. V.	Gainesville	Alachua
Woodward, Reginald B.	Sp. E. 1	Dade City	Pasco
Workman, Fred	Ag. V.	Jacksonville	Duval
Yarnoff, Wm. J.	Eng. Sp.	Gainesville	Alachua
Yates, Walter S.	T. 2	Gainesville	Alachua
Yeats, Milton L.	A. & S. 3	Tampa	Hillsborough
Yonge, R. Ellis	Eng. 1	Jacksonville	Duval
Young, Ray F.	A. & S. 1	Gainesville	Alachua

SUMMER SCHOOL, 1920

Name	Postoffice	County or State
Abbott, Charles E.	Ft. Green Springs	DeSoto
Adams, Pearl Winifred	Hastings	St Johns
Akins, Hattie	St. Catherine	Sumter
Akins, James D.	Bradentown	Manatee
Albertson, Walter E.	South Lake Weir	Marion
Albritton, Cynthia	Trilby	Pasco
Albritton, Kathleen	Bowling Green	DeSoto
Albritton, Mack A.	Trilby	Pasco
Alderman, Myra	Ft. Meade	Polk
Alexander, Louie	Ocala	Marion
Allen, A. C.	Zellwood	Orange
Anderson, Ewing	Gainesville	Alachua
Anderson, James N., Jr.	Gainesville	Alachua
Anderson, Loca	Raiford	Bradford
Anderson, Rose Marie	Brewster	Polk
Andrews, Alva O.	Darlington	Walton
Andrews, Lothair B.	Darlington	Walton
Anderson, Lucile	Knights	Hillsborough
Annis, Edna G.	Bradentown	Manatee
Apgar, Sylvia E.	Kenwood	Putnam
Archer, Benjamin E.	Jacksonville	Duval
Armstrong, Noble B.	Lake Butler	Bradford
Arrington, Mary	Trenton	Alachua
Ashe, Ione M.	Key West	Monroe
Atkinson, Mary	Center Hill	Sumter
Atwater, George S.	High Springs	Alachua
Avriett, Grace B.	Jennings	Hamilton

Name	Postoffice	County or State
Avriett, Madge	Jennings	Hamilton
Bache, Harold Franklin	Chattahoochee	Gadsden
Bailey, Edith M.	Clermont	Lake
Bailey, Joseph E.	Indrio	St. Lucie
Baker, Elizabeth	Gainesville	Alachua
Baker, Paul O.	Gainesville	Alachua
Ballentine, Grace	Gainesville	Alachua
Barco, Maude O.	Hawthorne	Alachua
Barnes, Ruth	O'Brien	Suwannee
Barney, Earl S.	Union City	Tennessee
Barrow, George W.	Baker	Okaloosa
Barrow, Eula Lee	Chiefland	Levy
Bashaw, Philip P.	Gainesville	Alachua
Bassett, Edna	Tampa	Hillsborough
Bates, Evelyn Esther	Tampa	Hillsborough
Bates, J. W.	Okeechobee	Okeechobee
Bayless, Bessie	Bushnell	Sumter
Beach, Austin O.	Hastings	St. Johns
Beach, Bessie	Webster	Sumter
Beach, Lillie Mae	Webster	Sumter
Beach, Palmer W.	Hastings	St. Johns
Beasley, Oscar	Gainesville	Alachua
Beck, E. C.	Gainesville	Alachua
Beck, Mrs. E. C.	Gainesville	Alachua
Beck, Faye	Ocala	Marion
Becker, Isabel May	Florida City	Dade
Begg, John Alfred	Jacksonville	Duval
Begg, Rose G.	Jacksonville	Duval
Belcher, Aileen	Largo	Pinellas
Bell, Corrie	Alachua	Alachua
Bell, Lillie M.	Ft. Meade	Polk
Bennett, Esther	Stuart	St. Lucie
Berry, Ivey C.	Center Hill	Sumter
Berry, Otis E.	Center Hill	Sumter
Biddle, Perry Harvey	DeFuniak Springs	Walton
Billings, Delah S.	Lake Butler	Bradford
Billingsley, Carrie	Reddick	Marion
Bishop, T. Bernard	Tampa	Hillsborough
Bivens, William J.	Tampa	Hillsborough
Black, Claude B.	Minneola	Lake
Bloomheart, Mary Ella	Tampa	Hillsborough
Blume, James Victor	Live Oak	Suwanee
Borland, Annie	Dothan	Alabama
Bostick, Ezra C.	Wauchula	DeSoto
Bouchelle, Anne V.	DeLand	Volusia
Boutelle, Margaret W.	Bradentown	Manatee
Boutelle, Mary Elva	Bradentown	Manatee
Bowen, Elizabeth E.	Newport	Arkansas
Boyles, Gladys	Sparr	Marion
Boyles, Sarah R.	Punta Gorda	DeSoto
Brantley, N. A.	Umatilla	Lake
Braren, Emma	Daytona	Volusia
Braddock, Elbert C.	Crescent City	Putnam
Briggs, Uarda	Zephyrhills	Pasco
Brodnax, Stella	Jacksonville	Duval
Brown, Alice	Lake City	Columbia
Brown, Carl L.	Lake Butler	Bradford
Brown, Lilla	Summerfield	Marion
Brown, Reba	Jacksonville	Duval
Brown, Winnie	Sanford	Seminole

Name	Postoffice	County or State
Brownlee, Lois	Callahan	Nassau
Bryan, Virgie	Coleman	Sumter
Bryant, Josie	Bell	Alachua
Bryant, Margaret	Lakeland	Polk
Bullard, N. H.	St. Cloud	Osceola
Bullock, Emma L.	Arcadia	DeSoto
Bullock, Wm. J.	Arcadia	DeSoto
Bunch, Wellington	Delray	Palm Beach
Burgess, Elizabeth T.	Aurantia	Brevard
Burke, Mrs. E. G.	Gainesville	Alachua
Burnett, Ruth, Margaret	Zephyrhills	Pasco
Callahan, R. E.	Dowling Park	Suwannee
Campbell, Neely	Bartow	Polk
Campbell, Wofford	Hastings	St. Johns
Campbell, Leslie	Largo	Pinellas
Canney, Ida G.	Live Oak	Suwanee
Cannon, Marjorie Sue	Gainesville	Alachua
Canova, Harry L.	Starke	Bradford
Carey, Mariam E.	Key West	Monroe
Carrier, Alice B.	Lakeland	Polk
Carter, Edgar W.	Oxford	Sumter
Caruso, James J.	Gainesville	Alachua
Cason, Shafter W.	Otter Creek	Levy
Cates, William H.	Tallahassee	Leon
Cathrane, Vernie	Alachua	Alachua
Cawthon, Anne W.	Gainesville	Alachua
Cecil, Ruth	Palmetto	Manatee
Chaffer, H. J.	Eau Gallie	Brevard
Chaffin, Rosalie	Gainesville	Alachua
Chaires, Thomas	Old Town	Lafayette
Chambers, Dorothy E.	Bradentown	Manatee
Chambers, Imo	Brooksville	Hernando
Childers, Lula	Ft. Meade	Polk
Clark, Clara M.	Manatee	Manatee
Clark, Monroe E.	Palmetto	Manatee
Clayton, E. A.	Aucilla	Jefferson
Clegg, Edith E.	Inverness	Citrus
Clement, Gertrude	Bartow	Polk
Clifton, Arveda	Spring Garden	Volusia
Coffey, Cora N.	Gainesville	Alachua
Cogburn, Park Harry	Cottondale	Jackson
Colbert, Florian Joseph	St. Leo	Pasco
Coleman, Isabel	Green Cove Springs	Clay
Collier, Eunice	Otter Creek	Levy
Collins, Beulah	Bushnell	Sumter
Collins, Gertrude	Live Oak	Suwannee
Collins, Lloyd Minot	Iola	Kansas
Colson, Cornelia	Gainesville	Alachua
Colson, C. C.	Tampa	Hillsborough
Colson, Mary Della	Jennings	Hamilton
Colson, Ottie [illegible]	Tampa	Hillsborough
Combley, Chas. Manuel	Melbourne	Brevard
Condon, Jessie Mae	Gainesville	Alachua
Connor, Miriam	Oklawaha	Marion
Cook, Delilah	Clermont	Lake
Cook, Nellie May	Clermont	Lake
Cooksey, Pearle	Lloyd	Jefferson
Cooper, Bernice Mary	Apopka	Orange
Corton, Edith L.	Apopka	Orange
Courson, Ethel	Arcadia	Orange

Name	*Postoffice*	*County or State*
Cox, Ruth	Quay	St. Lucie
Crandall, John M.	Gainesville	Alachua
Creekmore, Nora	Live Oak	Suwanee
Creighton, Leila A.	Old Town	Lafayette
Crews, Rose E.	Zolfo	DeSoto
Crippen, Dorothy M.	Dania	Broward
Crofton, L. C.	Chipley	Washington
Crow, Martha G.	Plant City	Hillsborough
Crowley, Della	Miakka	Manatee
Crusoe, Laura	Key West	Monroe
Curry, Amelia	Manatee	Manatee
Daiger, Mary	Umatilla	Lake
Dancy, Dorius Freeman	Palatka	Putnam
Daniel, Bertha M.	Sanibel	Lee
Dansby, Fanny	Orange Lake	Marion
Dansby, George M.	Orange Lake	Marion
Dansby, Sadie	Orange Lake	Marion
Davis, Bly	Delray	Palm Beach
Davis, Gladys	Tampa	Hillsborough
Davis, Mamie	Alachua	Alachua
Davis, Murrell Baisden	Palatka	Putnam
Davis, Ossie	Leesburg	Lake
Dean, Mary A.	Homeland	
DeBerry, Juanita	Manatee	Manatee
DeSha, Bernice	Jacksonville	Duval
Diamond, Sarah	Jacksonville	Duval
Dickson, Katherine Isabel	Winter Park	Orange
Diggs, Lou C.	Starke	Bradford
Dixon, Equilla	Graham	Bradford
Dodd, Augusta	Anthony	Marion
Donaldson, Malcolm G.	Shady Grove	Taylor
Dorsey, Anne Elizabeth	Gainesville	Alachua
Douglas, Ebbie H.	Ocala	Marion
Draa, Cecil C.	Mims	Brevard
Drinkall, Anastasia	Zephyrhills	Pasco
DuBose, Minnie Agness	High Springs	Alachua
Dudley, Edna	Newberry	Alachua
Duncan, Carrie E.	Ft. White	Columbia
Duncan, Orie D.	Ft. White	Columbia
Dunn, Wm. T.	Gainesville	Alachua
Durrance, Chas. L.	Pine Castle	Orange
Durrance, F. Y.	Arcadia	DeSoto
Durrance, Oscar L.	Bishopville	Volusia
Durrance, Mrs. O. L.	Bishopville	Volusia
Durden, Clara Mae	Tampa	Hillsborough
Dykes, George Malcolm	Eustis	Lake
Eargle, Florroe I.	Lochloosa	Alachua
Ellis, Anita C.	Tampa	Hillsborough
Ellis, Gladys E.	Meredith	Levy
Elmore, Anna	Bradentown	Manatee
Emerson, J. Rutledge	Gainesville	Alachua
Ennis, Dollie	Millville	Bay
Evrard, Elizabeth F.	Jacksonville	Duval
Farabee, T. N.	Wauchula	DeSoto
Farabee, Mrs. T. N.	Wauchula	DeSoto
Farnell, George P.	Detroit	Michigan
Farnell, Jessie	Ft. White	Columbia
Feagle, Edna Lee	High Springs	Alachua
Feagle, Pearl Edith	Ft. White	Columbia
Feagle, W. B.	High Springs	Alachua

Name	Postoffice	County or State
Feaster, Jacob Lynn	Micanopy	Alachua
Ferguson, Sarah	Ocala	Marion
Fernald, H. J.	Melrose	Massachusetts
Finlayson, John	Lake City	Columbia
Flewellen, Ludie	Tampa	Hillsborough
Fogg, Annie	Dade City	Pasco
Fogg, Grace D.	Graham	Bradford
Fogg, Leta Mattie	Graham	Bradford
Fogg, Linnie May	Graham	Bradford
Forbes, Pearl	Anthony	Marion
Fox, Gertrude	Jacksonville	Duval
Frazee, Thelma I.	Orlando	Orange
Freeland, Lela Vere	Lake Worth	Palm Beach
Frei, Mary A.	Archer	Alachua
Frost, Marie	New Smyrna	Volusia
Fulford, Tymie	Groveland	Lake
Futch, Eleanor	Hampton	Bradford
Futch, Opal	Alachua	Alachua
Gandy, Gladys	Bartow	Polk
Gardner, Mrs. C. S.	Waldo	Alachua
Gardner, Florence R.	Key West	Monroe
Garfunkel, Lorraine	Miami	Dade
Garnett, Mary Ella	Hypoluxo	Palm Beach
Garnett, Roy	Hypoluxo	Palm Beach
Garrett, Sheridan L.	Milligan	Okaloosa
Gasque, Myrtice E.	Bradentown	Manatee
Gault, Bessie Pearl	Ft. Ogden	DeSoto
Gault, Ruby	Ft. Ogden	DeSoto
Gause, Hetty B.	Astatula	Lake
Gay, Jessie	Crystal River	Citrus
Gay, Walter W.	Wauchula	DeSoto
Gay, Mrs. W. W.	Wauchula	DeSoto
Geiger, John G.	Gainesville	Alachua
George, Evelyn Marsh	Okeechobee	Okeechobee
George, Nellie Grace	High Springs	Alachua
Getch, Bertha	Orlando	Orange
Getch, Lucy Belle	Tampa	Hillsborough
Gibson, Nora E.	Clermont	Lake
Gill, Burgo D.	Jacksonville	Duval
Gillis, Irene	Ponce de Leon	Walton
Gillis, John A.	DeFuniak Springs	Walton
Gillen, Patrick Henry	Ocala	Marion
Gillon, Mary Ruth	Sanford	Seminole
Gladney, Mary	Lowell	Marion
Godbold, Amanda	Delray	Palm Beach
Godwin, Drew	Morriston	Levy
Goldsby, Mary B.	Ft. Myers	Lee
Grant, Margaret E.	Hobe Sound	Palm Beach
Gracy, James B.	Gainesville	Alachua
Gray, Hildreth	Delray	Palm Beach
Gray, Leon A.	Hinson	Gadsden
Green, Lillie	Palatka	Putnam
Griffin, Cora	Anthony	Marion
Griffin, Orville	Starke	Bradford
Griggs, Jennie Agnes	Oak	Marion
Grier, Lucie	West Palm Beach	Palm Beach
Grimes, H. S.	Gainesville	Alachua
Gwaltney, Bessie	Lisbon	Lake
Haile, Alexina J.	Gainesville	Alachua
Haile, Allan	Gainesville	Alachua

Name	*Postoffice*	*County or State*
Hager, Ruby	Bradentown	Manatee
Hai, Kenneth B.	Lynn Haven	Bay
Hall, Annie Pearle	Oklawaha	Marion
Hall, August J.	Gainesville	Alachua
Hall, Charles Stuart, Jr.	Miami	Dade
Hall, John Franklin	Tallahassee	Leon
Hall, N. G.	Orange Heights	Alachua
Hamilton, Earle E.	Palatka	Putnam
Hammel, Huldah	Wauchula	DeSoto
Hammer, Clara Catherine	Davie	Broward
Hampton, Nettie Eunice	Labelle	Lee
Hampton, Vera C.	Labelle	Lee
Handley, Olive O.	Raiford	Bradford
Hannon, Mary F.	Gainesville	Alachua
Hansen, Elsie Marie	Miami	Dade
Hardee, Robert E.	Savannah	Georgia
Hardin, Walter S.	Bradentown	Manatee
Harn, Julia E.	Gainesville	Alachua
Harper, Elizabeth A.	Boynton	Palm Beach
Harris, Florede M.	Gainesville	Alachua
Harris, Nannie D.	Winter Park	Orange
Harrison, Abbie	Arcadia	DeSoto
Harrison, Margaret	Lakeland	Polk
Hart, Eunice Alma	Tampa	Hillsborough
Hart, Ollie	Lakeland	Polk
Hartley, Lucy	Sutherland	Pinellas
Haseltine, H. A.	Tampa	Hillsborough
Hayes, J. W.	Gainesville	Alachua
Haynes, John M.	Dunnellon	Marion
Hayward, Gayle	Plant City	Hillsborough
Hayward, William H.	Kansas City	Missouri
Hazen, Eunice	Brooker	Bradford
Hazen, Lucien O.	Brooker	Bradford
Hazen, Marvin F.	Brooker	Bradford
Hefner, Mary	Bradentown	Manatee
Hensley, Hattie S.	Ocala	Marion
Hensley, Marie B.	Ocala	Marion
Hentz, Elberta	Tallahassee	Leon
Hentz, Eva	Tallahassee	Leon
Hepburn, Janie	Jupiter	Palm Beach
Herlong, Clara B.	Lake City	Columbia
Herlong, Myrtle	Crescent City	Putnam
Herlong, Queenie	Lake City	Columbia
Hill, Maoma F.	Dade City	Pasco
Hinson, Roy Murphy	Hinson	Gadsden
Hobbs, Mrs. Jay	St. Augustine	St. Johns
Holiday, Achsabel	Wekiva	Lake
Holiday, Minnie	Wekiva	Lake
Holland, George Q.	Lake Butler	Bradford
Hodnett, J. C.	Montverde	Lake
Holley, Nettie L.	Crescent City	Putnam
Hollinrake, Lynn Stevens	Gainesville	Alachua
Holly, Carrie	Connor	Marion
Hooks, Dorothy	Clermont	Lake
Howell, Mary Beulah	Wellborn	Suwanee
Howell, Orabelle	Wellborn	Suwanee
Howell, Thaddeus L.	New Smyrna	Volusia
Horton, Vera Edna	Ft. White	Columbia
Houseworth, Clara	Centerville	Indiana
Howard, Mary Louise	Sanford	Seminole

Name	Postoffice	County or State
Hubbell, Julia B.	Bradentown	Manatee
Hudgins, Maud	Hawthorne	Alachua
Hudson, Edna F.	Trenton	Alachua
Huff, Leiti Louisa	Jamison City	Pennsylvania
Huff, Van E.	Gainesville	Alachua
Huggart, Mary E. T.	Clarkton	Virginia
Hughes, Elizabeth	Canoe	Alabama
Hughes, George A.	Mill Bayou	Bay
Hughes, Jennie Mae	Canoe	Alabama
Hull, Madge O.	Labelle	Lee
Hull, Willie P.	Pine Level	DeSoto
Hunt, Deely A.	Cincinnati	Ohio
Hunter, F. R.	Ft. Myers	Lee
Hurlbert, L. Deborah	Jacksonville	Duval
Hurlebaus, Edward H.	Gainesville	Alachua
Hyatt, Ruth Elizabeth	Oxford	Sumter
Ingalls, Flora A.	Zephyrhills	Pasco
Ingalls, Sylvia A.	Zephyrhills	Pasco
Ishie, Grace	Ellzey	Levy
Jammes, Rose	Jacksonville	Duval
Johns, Carl	Starke	Bradford
Johnson, C. D.	Clearwater	Pinellas
Johnson, Dora	Raiford	Bradford
Johnson, Elizabeth	New Smyrna	Volusia
Johnson, Falcon L.	St. Petersburg	Pinellas
Johnson, Gertrude S.	Windermere	Orange
Johnson, Henry Cecil	Holt	Santa Rosa
Johnson, Loca	Raiford	Bradford
Johnson, Ola	Myakka City	Manatee
Johnson, Sarah Aliene	Concord	North Carolina
Jolly, Ella Belle	Waldo	Alachua
Jones, Elsie M.	Bell	Alachua
Jones, Olive Edith	Oak	Marion
Kelley, John Grady	Lake Butler	Bradford
Kelter, Susie	Palmetto	Manatee
Kickliter, Dowlin C.	Tampa	Hillsborough
Kindred, Ethel	Dania	Broward
King, Mrs. J. F.	Baileytown	Tennessee
King, Mary	Bowling Green	DeSoto
King, Nellie Mayo	Oviedo	Seminole
Kirby, Essie Mae	Newberry	Alachua
Kirkman, Rachael	Blanton	Pasco
Knight, Eury M.	Millville	Bay
Knight, Janie Audrey	Alachua	Alachua
Knight, Mary Virginia	Charlotte Harbor	DeSoto
Knight, Nannie	Tampa	Hillsborough
Kooker, Minerva	Jacksonville	Duval
Kraus, Edna	Jacksonville	Duval
Kinsey, Russell W.	Okeechobee	Okeechobee
Knight, Clarence	Alachua	Alachua
Lamboley, Lonita	Hawks Park	Volusia
Landers, Lillie Travis	Gainesville	Alachua
Lang, Edward Anthony	St. Leo	Pasco
Langford, Maurice G.	Alachua	Alachua
Lanier, Bessie	Cocoa	Brevard
Larimore, Lucile	Tampa	Hillsborough
Leader, Emily C.	Crystal Springs	Pasco
LeCroy, Eula M.	Orange City	Volusia
LeCroy, Iwanna	Orange City	Volusia
Lee, G. W.	Leesburg	Lake

Name	*Postoffice*	*County or State*
Lee, Homer Basil	Melrose	Alachua
Leggett, Earnest F.	St. Petersburg	Pinellas
Leivonen, John	Alachua	Alachua
Lent, Elizabeth	Sorrento	Lake
Lewis, Pearl	Gainesville	Alachua
Lewis, Robert E.	Seminole	Pinellas
Lewis, Stella	St. Petersburg	Pinellas
Link, Carl T.	Orlando	Orange
Lipscombe, Bertha	Jacksonville	Duval
Lipsey, J. J.	Live Oak	Suwannee
Livingston, Edith O.	St. Petersburg	Pinellas
Long, Annie Laurie	Mayo	Lafayette
Long, Joyce M.	Campville	Alachua
Long, Vera Inez	Campville	Alachua
Louise, Sister M.	Key West	Monroe
Love, Mamie	Titusville	Brevard
Lowe, Ruth	Key West	Monroe
Lovell, Mary A.	Groveland	Lake
Lucas, Jennie Lind	St. Augustine	St. Johns
McArthur, Gertrude	Gholson	Mississippi
McArthur, J. N.	Madison	Madison
McArthur, Lucy V.	Gainesville	Alachua
McAteer, Gertrude E.	Ocala	Marion
McCall, Maude L.	High Springs	Alachua
McCall, Mrs. T. E.	Jennings	Hamilton
McClamroch, James M.	Gainesville	Alachua
McCollister, Pansy	Branford	Suwanee
McCormick, Hugh	Eau Gallie	Brevard
McCormick, Susie	Statesboro	Georgia
McCreedy, Ethel M.	Mt. Dora	Lake
McClure, Wanda	Tampa	Hillsborough
McCulley, Claude	Ocala	Marion
McDonald, Clara R.	Gainesville	Alachua
McDonald, Sophie E.	Lutz	Hillsborough
McDuffie, Bertie Mae	Manatee	Manatee
McEwen, R. O.	Newberry	Alachua
McGehee, Alice	Wauchula	DeSoto
McInnis, Sam W.	O'Brien	Suwanee
McInnis, Stella	O'Brien	Suwanee
McKay, Mrs. G. E.	Key West	Monroe
McKay, G. E.	Key West	Monroe
McKinney, Eva Mae	Lake Butler	Bradford
McKinnon, Francis T.	Marianna	Jackson
McKinstry, Anna Isabel	Gainesville	Alachua
McKinstry, Belle F.	Gainesville	Alachua
McLane, Eldredge E.	Greensboro	Gadsden
McLeod, Clarence S.	Rodman	Putnam
McMillan, Mary Louise	Gainesville	Alachua
McMullen, Elizabeth	Largo	Pinellas
McNeill, Margaret	Kissimmee	Osceola
McRae, Thelma R.	Alachua	Alachua
McVey, Harvey	Limestone	DeSoto
Magill, Mary A.	Key West	Monroe
Magill, Maude	Labelle	Lee
Malphurs, Johnnie Blanche	Alachua	Alachua
Malphurs, Ojus	High Springs	Alachua
Malphurs, Willie Ruth	Alachua	Alachua
Malphurs, York	Alachua	Alachua
Mancy, Ophie	Plant City	Hillsborough
Markwood, Frank E.	Oakland	Orange

Name	Postoffice	County or State
Martin, Antoinette	Dade City	Pasco
Martin, Cora Lee	High Springs	Alachua
Martin, Emma Gayle	Ft. White	Columbia
Martin, Fannie	Ft. White	Columbia
Martin, Lynn Ellis	Ft. White	Columbia
Martin, Ruth	Bay Harbor	Bay
Martin, Vera C.	Dade City	Pasco
Matlack, Marion Brooks	Sorrento	Lake
Matthews, Blan	Alachua	Alachua
Matthews, John Ray	Hawthorne	Alachua
Maxwell, James M.	Hampton	Bradford
Meachem, Jo C.	St. Petersburg	Pinellas
Meadows, Alfred A.	Ocala	Marion
Mears, George H.	Cypress	Jackson
Mears, John M.	Cypress	Jackson
Meffert, Mabel E.	Ocala	Marion
Merrin, James Frank	Plant City	Hillsborough
Merritt, Ruby	St. Catherine	Sumter
Metcalfe, Mrs. H. G.	Live Oak	Suwanee
Miley, Flossie Inez	Plant City	Hillsborough
Miller, Mrs. G. E.	Bradentown	Manatee
Miller, Hattie V.	Leesburg	Lake
Milligan, Hattie	Anthony	Marion
Mills, Mrs. Brant	Live Otk	Suwanee
Minor, Bess Melvin	Manatee	Manatee
Minton, Oma Carl	Hastings	St. Johns
Mooney, Wilma Elma	Otter Creek	Levy
Moore, Annie	Lulu	Bradford
Moore, Bernice	Clermont	Lake
Moore, Mrs. D. H.	Clermont	Lake
Moore, D. H.	Clermont	Lake
Moore, Ellis	Milligan	Okaloosa
Morford, Eva	Port Orange	Volusia
Morlan, Ira	Eau Gallie	Brevard
Morris, Jo Anna	Gainesville	Alachua
Morton, Byron	Zellwood	Orange
Mountain, R. O.	Brooksville	Hernando
Mountain, Thelma	Dade City	Pasco
Moyer, Martin H.	Ft. White	Columbia
Munro, Mollie	Delray	Palm Beach
Murphree, Martha	Gainesville	Alachua
Murray, Leora	Hawks Park	Volusia
Nagel, Levi M.	Interlachen	Putnam
Nichols, Robert C.	Wildwood	Sumter
Niswonger, Iva	Kissimmee	Osceola
Nolan, Mamie	Jacksonville	Duval
O'Berry, Edmund R.	Dade City	Pasco
O'Bryant, Violet	Oxford	Sumter
O'Neal, Mamie D.	Largo	Pinellas
Ormsby, Hazel Ray	Lakeland	Polk
Osteen, Gladys E.	Lotus	Brevard
Osteen, Lucille	High Springs	Alachua
Otto, Joseph	Key West	Monroe
Otto, Thomas O.	Key West	Monroe
Owens, Cora	Palatka	Putnam
Owens, Virgie	Ft. Myers	Lee
Paetke, Nettie	Ocala	Marion
Page, Lorraine E.	Mims	Brevard
Park, Lizzie E.	Key West	Monroe
Parker, Florrie Annie	Gainesville	Alachua

Name	Postoffice	County or State
Parker, Herbert	Arcadia	DeSoto
Parker, Mrs. L. H.	Mt. Dora	Lake
Parker, Mattie Lee	Ft. Pierce	St. Lucie
Parker, Maud	Pittman	Lake
Parker, Myrtice	Mt. Dora	Lake
Parker, Vela	Graceville	Jackson
Parrish, Ruby Lee	Lake Butler	Bradford
Parsons, Mary S.	DeLand	Volusia
Paschall, Mrs. S. E.	Wauchula	DeSoto
Pattillo, Effie Frances	Port Orange	Volusia
Peacock, Avon J.	Bronson	Levy
Peacock, Mrs. E. G.	Mayo	Lafayette
Peaden, Porter Lee	Red Rock	Santa Rosa
Peckham, Priscilla K.	St. Cloud	Osceola
Pedigo, Louise	Pueblo	Hillsborough
Pedigo, Marie	Tampa	Hillsborough
Peeples, Earle Edward	Lake Butler	Bradford
Peeples, Lorace	Bowling Green	DeSoto
Pender, Marmaduke S.	Sneads	Jackson
Pepper, Wm. M., Jr.	Gainesville	Alachua
Perry, Josephine	Tampa	Hillsborough
Perry, Lucye V.	Raiford	Bradford
Perry, Mable	Jacksonville	Duval
Perry, Mattie	Gainesville	Alachua
Person, Charles W.	Wildwood	Sumter
Peterson, Inez E.	Morriston	Levy
Phelps, Mina P.	Ozona	Pinellas
Pickering, Mrs. R. L.	Eastport	Duval
Pinholster, George D.	St. Petersburg	Pinellas
Pinkoson, Sallie	Gainesville	Alachua
Pinner, Hattie	Ellzey	Levy
Pitchford, Lucy	Fort Pierce	St. Lucie
Plummer, Margaret L.	Anthony	Marion
Pope, Charles Edward	Starke	Bradford
Porter, Annie E.	Jacksonville	Duval
Potter, Eleanor	Seffner	Hillsborough
Potts, Joseph	Gainesville	Alachua
Pressley, Eunice	Columbia	South Carolina
Prevatt, Zora Belle	Gainesville	Alachua
Price, Ida	Hawthorne	Alachua
Priest, Wheeler Joseph	Morriston	Levy
Prince, Effie V.	Island Grove	Alachua
Prince, Gertrude	Micanopy	Alachua
Prince, William Cary	Greenville	Madison
Prince, W. W.	Minneapolis	Minnesota
Puett, Ruby A.	Bradentown	Manatee
Pugh, Elizabeth	Newport	Arkansas
Purdy, Lillias J.	Daytona	Volusia
Puterbaugh, Hallie	Branford	Suwannee
Ramsey, Eloise	Gainesville	Alachua
Randall, Irene	Gainesville	Alachua
Rawles, Lula D.	Gainesville	Alachua
Reams, A. D.	Greenville	Madison
Redfiarn, Wm. Jackson	Adel	Georgia
Reder, Clarise	Key West	Monroe
Reid. Amelia Louise	Ft. Pierce	St. Lucie
Rencher, Orlin B.	Apopka	Orange
Richardson, Mark M.	Evinston	Marion
Richardson, Virgie	O'Brien	Suwanee
Richmond, Sadie F.	Memphis	Tennessee

Name	Postoffice	County or State
Ricks, Ruby	Gainesville	Alachua
Robbins, Pearl H.	Lakeland	Polk
Roberts, Aaron K.	Wellborn	Suwanee
Roberts, Louise	Gainesville	Alachua
Roberts, Mamie	Bell	Alachua
Roberts, Myrtle	Bell	Alachua
Roberts, Verdie	O'Brien	Suwanee
Roberts, Walter	Wellborn	Suwanee
Robertson, Justine	Lakeland	Polk
Robinson, Mary E.	Sanford	Seminole
Robinson, Reda	Melrose	Alachua
Robshaw, Fred	Hastings	St. Johns
Rodgers, Lillie	Tampa	Hillsborough
Rogero, Ethel C.	Eau Gallie	Brevard
Rogers, Mamie E.	Tampa	Hillsborough
Rolfs, Clarissa	Gainesville	Alachua
Rose, Alfred P.	Gainesville	Alachua
Ross, Daisy C.	Williston	Levy
Rowe, Anna May	Hawthorne	Alachua
Rush, Allie Lee	McIntosh	Marion
Russell, Reba Isabell	Key West	Monroe
Ryan, Otta M.	Wilson	Brevard
Salmi, Annie L.	Alachua	Alachua
Sample, Mildred	Paisley	Lake
Sandefur, Mrs. A. D.	Palmetto	Manatee
Sands, Isabel S.	Key West	Monroe
Sapp, Agatha	Bell	Alachua
Sapp, Charles R.	Lawtey	Bradford
Sapp, Gertrude	Bell	Alachua
Sapp, Myrtle	Alachua	Alachua
Saunders, Maude L.	DeFuniak Springs	Walton
Savage, Charles A., Jr.	Ocala	Marion
Savage, Gordon	Ocala	Marion
Schabinger, John	Delray	Palm Beach
Scofield, Joseph W.	Inverness	Citrus
Scott, John P.	Lake City	Columbia
Scotten, Mrs. John	Gainesville	Alachua
Searle, Leola T.	Tampa	Hillsborough
Seckinger, Nine	Ocala	Marion
Seiler, Allie E.	Oak	Marion
Sellers, Laura	Center Hill	Sumter
Semmes, Sister Catherine	Key West	Monroe
Sessoms, Florence M.	Dade City	Pasco
Shannon, Helen Alice	Bradentown	Manatee
Shaver, Georgia B.	Wauchula	DeSoto
Shealey, Leygia Mae	Sparr	Marion
Shealey, Roberts	Sparr	Marion
Shearouse, Jasper N.	Savannah	Georgia
Sheppard, Milo	Chiefland	Levy
Shumate, Eugenia M.	Bartow	Polk
Shumate, Sarah R.	Bartow	Polk
Simpson, Blanche B.	Mt. Dora	Lake
Simpson, Lottie R.	Melbourne	Brevard
Simmons, Andrew C.	Jacksonville	Duval
Simmons, G. Ballard	Ponce de Leon	Holmes
Slaughter, Myrtle V.	Bell	Alachua
Slone, Carrie L.	Mascotte	Lake
Smallwood, Emma Louise	Gunntown	Levy
Smedley, Joseph M.	Ocala	Marion
Smith, Archibald Y.	Miami	Dade

Name	Postoffice	County or State
Smith, Daisy R.	Tampa	Hillsborough
Smith, Dorothy	Titusville	Brevard
Smith, Earl L.	Ocala	Marion
Smith, Foster Shi	Hawthorne	Alachua
Smith, Grace	Arcadia	DeSoto
Smith, John G.	West Palm Beach	Palm Beach
Smith, Joseph G.	Tignall	Georgia
Smith, Lucius Neal	Montverde	Lake
Smith, Nina	Plant City	Hillsborough
Smith, Ruth	Graham	Bradford
Smith, Ruth	Cocoa	Brevard
Sparkman, Amos	Plant City	Hillsborough
Sparkman, Daisy	Green Cove Springs	Clay
Spencer, Carolyn E.	Sanford	Semintle
Starbird, Mabel R.	Apopka	Orange
Stalvey, Maggie L.	Trenton	Alachua
Steckert, Caroline	Gainesville	Alachua
Stephens, Mamie L.	Apopka	Orange
Stevens, Ethel Bell	Orlando	Orange
Stivender, Mrs. M. D.	Leesburg	Lake
Stoops, Leora M.	Umatilla	Lake
Stoops, Ora L.	Umatilla	Lake
Strange, Irma L.	Quincy	Gadsden
Strewing, Ruby Pearl	St. Cloud	Osceola
Strong, Winifred L.	Palatka	Putnam
Stroud, M. R.	Wauchula	DeSoto
Suddath, Boyce	Richland	Georgia
Summitt, Robert E.	Pomona	Putnam
Sutker, Nathan	Savannah	Georgia
Swanson, R. M.	Gainesville	Alachua
Swint, Ione Elizabeth	Sanibel	Lee
Tan, Len B.	Canton	China
Taylor, Charles Dudley	Eau Gallie	Brevard
Taylor, John Stansel, Jr.	Largo	Pinellas
Taylor, Margaret M.	St. Cloud	Osceola
Taylor, Thomas DeWitt	Oak Hill	Volusia
Terwilleger, Helen Bruce	Sanford	Seminole
Thomas, Clara	Gainesville	Alachua
Thomas, Harvey Lee	Center Hill	Sumter
Thomas, Lacy G.	Baldwin	Duval
Thomas, Lena O.	Buckingham	Lee
Thomas, Leo Julian	Lake City	Columbia
Thomas, Ruby	Alachua	Alachua
Thomas, Ruth Barnwell	St. Petersburg	Pinellas
Thomas, Thelma	Brooker	Bradford
Thompson, Mrs. J. N.	Oviedo	Seminole
Thomson, Anna Blair	Gainesville	Alachua
Tichenor, Altha	Orlando	Orange
Tidwell, Vera Johnson	Orlando	Orange
Tiller, Laura Virginia	Kissimmee	Osceola
Tiller, Mary	Kissimmee	Osceola
Tillis, Coralie	Sanford	Seminole
Todd, Sallie O.	Dover	Hillsborough
Tomkies, Kate	Gainesville	Alachua
Torano, Emma O.	Key West	Monroe
Trottman, W. E.	Interlachen	Putnam
Tyler, Mrs. E. A.	Coleman	Sumter
Urquhart, Henry E.	Milton	Santa Rosa
Valentine, Dora	Trilby	Pasco
Valentine, Hop	Trilby	Pasco

Name	Postoffice	County or State
Valentine, Mary Maud	Trilby	Pasco
Walden, Mattie	Bradentown	Manatee
Walker, Charles H.	Lakeland	Polk
Walker, Edward Kenna	Wauchula	DeSoto
Walker, Judson B.	Baker	Okaloosa
Walker, Rosa L.	Lakeland	Polk
Wallace, Rose Mary	Zephyrhills	Pasco
Walling, Leonard B.	Leesburg	Lake
Walton, Mary E.	Frostproof	Polk
Wardroper, John H.	Gainesville	Alachua
Ware, Ruby	Worthington	Bradford
Ware, Russie	Worthington	Bradford
Waters, Mae	Bell	Alachua
Watterson, Jessie E.	Chiefland	Levy
Watson, J. W.	Frostproof	Polk
Watson, Wilma Ruth	Gainesville	Alachua
Weedon, F. R.	Gainesville	Alachua
Welch, Elizabeth	Apopka	Orange
Wells, Janie M.	Center Hill	Sumter
Westbrook, Albert T.	Clermont	Lake
Westmoreland, Robert L.	Gainesville	Alachua
Wetzel, Eva May	Jacksonville	Duval
Wheeler, Bureon K.	Montverde	Lake
Wheeler, Joseph A.	Key West	Monroe
Wheeler, Joseph D.	Micco	Brevard
White, Millard B.	Gainesville	Alachua
White, Ruth	Gainesville	Alachua
Whitelaw, Laura	Floral City	Citrus
Wiggins, Ollie	Sydney	Hillsborough
Wilcox, Gladys L.	Jacksonville	Duval
Wilder, Gladys Alberta	Knights	Hillsborough
Willett, J. E.	Melbourne	Brevard
Williams, Agnes E.	Crystal River	Citrus
Williams, Carl	Alachua	Alachua
Williams, Clarine	Watertown	Columbia
Williams, Emily Lorene	Crystal River	Citrus
Williams, Evalyn	Watertown	Columbia
Williams, Mrs. G. A.	Trenton	Alachua
Wiliams, Gertrude E.	Hallendale	Brevard
Williams, Julia	Jacksonville	Duval
Williams, Leon Lacy	Morriston	Levy
Willis, Anna B.	Jacksonville	Duval
Willoughby, Alice	Gainesville	Alachua
Willoughby, Mrs. C. H.	Gainesville	Alachua
Wilson, Laura Rebecca	Hastings	St. Johns
Wilson, Rose Alice	Bradentown	Manatee
Winter, Thurston P.	Oakland	Orange
Woods, Isabel Florence	Bowling Green	DeSoto
Wooten, Helen M.	Sutherland	Pinellas
Works, Clarissa K.	Astatula	Lake
Worley, Dwight M.	Arcadia	DeSoto
Wright, Banna	Okeechobee	Okeechobee
Wynn, Orabelle	Gainesville	Alachua
Yates, Walter S.	Gainesville	Alachua
Young, Mary Elizabeth	Jacksonville	Duval
Young, Ruth Allen	Oviedo	Seminole

FARMERS' TEN-DAY SHOURT COURSE, JANUARY 4 TO 14, 1921

Name	*Postoffice*	*County or State*
Bellamy, Ethel H.	Gainesville	Alachua
Brammer, William O., Jr.	Jacksonville	Duval
Bristol, Lois R.	Gainesville	Alachua
Bristol, Lucius M.	Gainesville	Alachua
Brooks, Irving C.	Gainesville	Alachua
Chaney, Harold H.	Madeira	Ohio
Cox, Marie	Lake City	Columbia
Compton, John C.	Chicago	Illinois
Dodson, J. B.	Gainesville	Alachua
Edge, Walter T.	Madison	Madison
Floyd, Minnie M.	Tallahassee	Leon
Gant, Henry	Glen Cove	New York
Geesieck, Henry G.	Brooksville	Hernando
Gibson, Thos. C.	Gainesville	Alachua
Griffin, William M.	Chipley	Washington
Grindstaff, Mrs. Jas. D.	Johnson City	Tennessee
Gunn, Annie R.	Gainesville	Alachua
Hadsock, Frank F.	Green Cove Springs	Clay
Hall, Mrs. R. W.	Gainesville	Alachua
Hertel, William H.	Gainesville	Alachua
Hodsden, Bessie M.	Blacksburg	Virginia
Irvin, James L.	Callahan	Nassau
Kail, Claud	Gainesville	Alachua
LeNoir, Ellen	Jacksonville	Duval
Leigh, Blanche W.	Gainesville	Alachua
Lowery, Alva E.	Bagdad	Santa Rosa
Miller, R. A.	Gainesville	Alachua
Miller, Anna A.	Gainesville	Alachua
Morrison, James B., Jr.	McClellanville	South Carolina
Parrish, Isaac N.	Gainesville	Alachua
Pierce, Lester J.	New Richmond	Indiana
Plitt, George M.	Tavares	Lake
Randall, Irene	Gainesville	Alachua
Rogers, Charles K.	Plant City	Hillsborough
Robertson, Emma	Gainesville	Alachua
Seegar, J. G.	Gainesville	Alachua
Smith, Mrs. R. L.	Huntsville	Alabama
Smith, R. L.	Huntsville	Alabama
Smith, Ruby	Gainesville	Alachua
Snuggs, Edward T.	Pakhoi	South China
Snuggs, Josephine M.	Pakhoi	South China
Spector, Robert	New York	New York
Todd, George R.	Punxsutawney	Pennsylvania
Van Vleck, Earl R.	Winokur	Georgia
Wiggins, Hugh Herbert	Arch Creek	Dade
Williams, Miles L.	Crystal River	Citrus

CLUB BOYS' FOURTH ANNUAL SHORT COURSE
December 6-11, 1920

Name	*Postoffice*	*County or State*
Alderman, Davie	Arcadia	DeSoto
Alderman, George	Lakeland	Polk
Alderman, Leon	Wimauma	Hillsborough
Anderson, Paul	Brewster	Polk
Baetz, Carl	Lake City	Columbia
Barrineau, Harvey	Quintette	Escambia

Name	Postoffice	County or State
Beville, J. W., Jr.	Gainesville	Alachua
Bird, Henry F.	Perry	Taylor
Bishop, George M.	Baldwin	Duval
Blitch, Nelson	Trenton	Alachua
Booth, Charles	Plant City	Hillsborough
Bowdoin, John	Perry	Taylor
Bradwell, Junior	Hosford	Liberty
Brown, Harvey B.	Orange Heights	Alachua
Brown, Homer	Westville	Holmes
Buffington, Theo.	Morriston	Marion
Carter, Buford	Lloyd	Jefferson
Carter, Kendrick	Bartow	Polk
Clark, Earnest	Ft. Meade	Polk
Clark, W. Olive	Ft. Meade	Polk
Core, Kelly N.	Homestead	Dade
Crosby, Theodore	Newberry	Alachua
Downing, Crawford	Trenton	Alachua
Downing, Lonnie	Trenton	Alachua
Downing, Shelton	Parrish	Manatee
Driggers, I. J., Jr.	Zolfo	DeSoto
Edenfield, Emmett	Laurel Hill	Okaloosa
Erickson, Karl	Canal Point	Palm Beach
Fields, L. T.	Panama City	Bay
Fletcher, G. D.	Bell	Alachua
Fraser, Ashey	Hawthorne	Alachua
Fraser, Ernan	Hawthorne	Alachua
Fox, Edgar	Pinetta	Madison
Futch, Clyde	Plant City	Hillsborough
Futch, James	Plant City	Hillsborough
Glass, Theo	Lee	Madison
Gwaltney, Jas. W.	St. Andrews	Bay
Hall, Lewis	West Palm Beach	Palm Beach
Hall, Ollen	Plant City	Hillsborough
Hansen, Halron	Tallahassee	Leon
Henry, Ralph	Hawthorne	Alachua
Henry, Robert	Hawthorne	Alachua
Hodge, Park	Newberry	Alachua
Hodge, Rivers	Newberry	Alachua
Hodge, Ruff	Newberry	Alachua
Holt, Willie	Newberry	Alachua
Horrell, Jas. G.	Arcadia	DeSoto
Johnson, Alton B.	Holt	Santa Rosa
Johnson, Arrie L.	Jay	Santa Rosa
Johnson, Eugene	Holt	Santa Rosa
Johnson, Gordon	Arcadia	DeSoto
Jones, Lee	Brooksville	Hernando
King, Percy	Inverness	Citrus
Kuhn, Herman	Miami	Dade
Leivonen, Pete	Alachua	Alachua
McVeigh, Drew	Baldwin	Duval
Manning, J. T.	Milton	Santa Rosa
Martin, Ralph	Newberry	Alachua
Martin, Stewart A.	Audubon	Brevard
Mead, George E., Jr.	St. Andrews	Bay
Miley, Don	Plant City	Hillsborough
Miley, Lloyd	Plant City	Hillsborough
Miller Albert	Dukes	Bradford
Moffett, Roy	Bonifay	Holmes
Monroe, Dannie, Jr.	Lloyd	Jefferson
Morris, Windell	Pensacola	Escambia

Name	*Postoffice*	*County or State*
Murphey, Harvey	Ponce de Leon	Holmes
Neil, Vernon	Ocala	Marion
NeSmith, Louis	Plant City	Hillsborough
Parker, Carl	Gainesville	Alachua
Parker, Ellis	Gainesville	Alachua
Pearson, Seibert	Alachua	Alachua
Pickett, Clarence	Grand Crossing	Duval
Pickett, Earl	Grand Crossing	Duval
Pipkin, Francis	Lakeland	Polk
Pledger, Wilbur	Marianna	Jackson
Priest, George R.	Brooksville	Hernando
Pringle, Eustace	Baldwin	Duval
Pringle, Gervin	Baldwin	Duval
Rains, Early	Madison	Madison
Raulerson, Luther C.	Plant City	Hillsborough
Roberts, A. C.	Dade City	Pasco
Roberts, Lee L.	Trenton	Alachua
Roche, Buell	Vernon	Washington
Saarinen, Albert	Alachua	Alachua
Salmi, Emil	Alachua	Alachua
Seals, Roy	Madison	Madison
Senterfill, Cecil	Laurel Hill	Okaloosa
Sibert, Jack	Perry	Taylor
Sullivan, W. R.	Richland	Pasco
Sutton, Leon	Ponce de Leon	Holmes
Thomas, Francis	Earlton	Alachua
Watson, Arnold	South Jacksonville	Duval
West, Wm. M.	Orlando	Orange
Wheeler, Alton	Lakeland	Polk
Williams, Emery	Alachua	Alachua
Wolfe, Claud H.	St. Augustine	St. Johns
Woods, Bithe	Perry	Taylor
Woods, Byron	Perry	Taylor

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Graduate School		2
College of Arts and Sciences		226
College of Agriculture—		
College	87	
Two-Year Course	24	
One-Year Course	12	
Four-Month Course	6	
Elementary Vocational Course	145	
		274
College of Engineering—		
College	160	
Elementary Vocational Course	16	
		176
College of Law		115
Teachers College and Normal School—		
College	42	
Normal Training School	34	
Summer School, 1920	743	
		819
Total Enrollment for 1920-1921		1612
Counted twice		41
Net Total		1571
Number attending Boys' Short Course in Agriculture		99
Number attending Farmers' Ten-Day Short Course		46
Grand Total		1716

SUMMARY BY STATES AND FOREIGN COUNTRIES

	Summer Session 1920	Regular Session 1920-21
Alabama	3	0
Arkansas	2	0
Brazil	0	1
China	1	1
District of Columbia	0	1
Ecuador	0	1
Florida	713	752
Georgia	7	15
Illinois	0	1
Indiana	1	2
Kansas	1	0
Kentucky	0	1
Massachusetts	1	4
Michigan	1	1
Minnesota	1	2
Mississippi	2	1
Missouri	1	1
New Jersey	0	1
New York	0	4
North Carolina	2	6
North Dakota	0	1
Ohio	1	3
Panama	0	2
Pennsylvania	1	9
South Carolina	1	4
Tennessee	3	6
Texas	0	2
Virginia	1	4
West Virginia	0	1
Wisconsin	0	1
Totals	743	828
Total for Summer and Regular Sessions		1571

SUMMARY BY COUNTIES

	Summer Session 1920	Regular Session 1920-21
Alachua	132	97
Baker	0	1
Bay	33	14
Brevard	20	7
Broward	3	4
Calhoun	0	7
Citrus	6	6
Clay	2	2
Columbia	17	6
Dade	5	32
DeSoto	31	31
Duval	26	68
Escambia	0	20
Franklin	0	2
Gadsden	6	8
Hamilton	4	6
Hernando	2	5
Hillsborough	35	77
Holmes	2	6
Jackson	7	20
Jefferson	2	8
Lafayette	4	1
Lake	41	15
Lee	10	6
Leon	4	16
Levy	15	5
Madison	3	4
Manatee	26	12
Marion	41	21
Monroe	18	7
Nassau	1	1
Okaloosa	4	13
Okeechobee	4	0
Orange	20	20
Osceola	8	12
Palm Beach	14	11
Pasco	21	6
Pinellas	17	34
Polk	21	34
Putnam	13	14
St. Johns	9	9
St. Lucie	6	15
Santa Rosa	3	10
Seminole	10	10
Sumter	19	8
Suwanee	19	7
Taylor	1	1
Volusia	17	7
Wakulla	0	2
Walton	5	10
Washington	1	9
Total from fifty-two Florida Counties	713	752
Total from other States and Foreign Countries	30	76
Net Total	743	828
		1571

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Vol. 16

UNIVERSITY OF FLORIDA
TEACHERS COLLEGE

Issued by the
Department of Secondary Education

PROCEEDINGS OF THE HIGH SCHOOL CONFERENCE OF APRIL 15, 16 AND 17, 1920

Edited and compiled by the
Professor of Secondary Education

THE 1921 CONFERENCE WILL BE APRIL 7, 8 AND 9
AT THE UNIVERSITY OF FLORIDA

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FOREWORD

This bulletin of the proceedings of the first Annual Conference of High School Principals, records in a certain sense, the beginning of systematic cooperative effort toward the betterment of our high schools.

During the spring of 1912 a meeting similar to that of 1920 was held at the State University, and with very helpful results; but the addresses delivered then were not published, neither does it appear that those in attendance had in mind a permanent organization. The Conference that assembled last April met with such favor among the leading principals of the state, and was productive of so much good, that it was deemed desirable to publish the papers read during the session; hence this bulletin. It is planned to make the organization permanent, and to enlist the best efforts of all friends of secondary education in the state.

W. S. CAWTHON,
State High School Inspector.

MINUTES OF THE CONFERENCE OF HIGH SCHOOL PRINCIPALS

UNIVERSITY OF FLORIDA, GAINESVILLE, APRIL 15 AND 16, 1920

At the call of the State High School Inspector, Mr. W. S. Cawthon, a representative number of principals of Florida high schools met in Gainesville on April 15th.

The conference assembled at 8:00 P. M. in the auditorium of the Gainesville High School and was called to order by Mr. Cawthon. In a brief welcome address Mr. Cawthon incidentally stated some of the reasons for calling such a conference and for calling it at the time and place. He stated that the Florida Educational Association and other educational conventions of the state offered little or no opportunity for the proper discussion of problems which specifically pertain to the work of high school principals. There was a feeling more or less general among the principals that there should be a separate conference where principals could exchange ideas and plans and work out solutions for their common problems. It was thought best to meet in Gainesville just at the time because the State High School Meet was scheduled for the same time, and it would be more convenient and less expensive for all principals who were interested in both meetings.

Following the welcome address, Mr. Cawthon introduced the speaker of the evening, Dr. Harry Clark, of the University of Tennessee. No speaker that appears before Florida educational meetings is more beloved and popular than is Dr. Clark. The audience, consequently, expected much from the speaker, and were more than satisfied. Dr. Clark chose as his subject—"SEEN EFFECTS OF THE WAR," and discussed these particularly as they related to or effected education. The address was replete with inspiration and optimism and sparkled with humor and practical suggestions.

Friday morning at 9:00 o'clock the Conference was again called to order in Peabody Hall Teachers College by Mr. Cawthon, who again stated the purpose of the Conference, showed the practical benefits that might result from such a meeting, and expressed a desire that the conference might be made a permanent organization.

The Conference proceeded to the election of officers, Mr. H. G. Metcalfe, Principal of the Suwanee High School, being elected President, and Mr. W. H. Cassels, Principal of Putnam High School, being elected Secretary.

After organization, the regular program, previously prepared by Mr. Cawthon, was taken up, and, with a few changes of order, was carried out practically as written. Mr. Sealey and Mr. Wilson exchanged places, the latter reading the paper on "PHYSICAL FITNESS AS AN OBJECTIVE IN HIGH SCHOOL EDUCATION," and the former leading the discussion. All of those assigned places on the program were present and responded, except principals George W. Marks, C. I. Hollingworth and J. H. Workman. The papers and discussions were unusually good, practical and encouraging.

Several members of the University Faculty, students of the University, a few County Superintendents, and State Superintendent W. N. Sheats, attended the session of the Conference and were accorded the privilege of the floor.

As the closing number of the Friday morning session, Dr. Clark gave an interesting and instructive talk on "Accrediting."

At the Friday afternoon session, Miss Edith M. Thomas, State Supervisor of Home Economics for the Smith-Hughes Schools, gave an entertaining and practical talk on the kind of home economics that should be offered in high schools. She advocated making the home economics course as practical as possible, and to this end she favored the frequent assignment of home projects to be worked out by the pupil. She stated that she is preparing a course of study in home economics for Florida High Schools.

Major Bloxom Ward, Commandant at the University, was accorded the privilege of the floor and addressed the Conference on the educational opportunities offered to young men by the R.O.T.C. and the regular army.

On motion of Principal P. W. Corr, the chair appointed at the morning session a resolution committee consisting of Mr. W. S. Cawthon, Principals P. W. Corr and P. H. Hensley.

On motion of Mr. R. M. Sealey, the Conference went on record as favoring the acceptance by the colleges of one unit of Physical Education.

At the close of the afternoon session, the Committee on Resolutions submitted its report which was adopted.

After adoption of the resolutions, the conference adjourned to meet again in 1921 at the call of the State High School Inspector.

CONFERENCE COMMITTEE

General Conference Committee:

W. S. Cawthon, University, *Chairman,* and Director of Conference
John H. Workman, Pensacola
Chas. M. Jones, Lakeland
F. W. Buchholz, Gainesville
R. M. Sealey, Tallahassee
R. M. Evans, Quincy
S. A. Draper, Leesburg
Claude S. Ogilvie, Sanford
Jos. Roemer, Gainesville

English Section:

John H. Workman, Pensacola, *Chairman*
L. R. Sims, Panama City
Ira McAlpin, DeFuniak Springs

Mathematics:

Chas. M. Jones, Lakeland, *Chairman*
D. N. Cook, Tampa
Miss Eunice DeLaney, Orlando

Foreign Languages:

F. W. Buchholz, Gainesville, *Chairman*
H. G. Metcalfe, Live Oak
A. C. Alleshouse, Miami

Social Studies:

R. M. Sealey, Tallahassee, *Chairman*
S. L. Woodward, Plant City
T. C. Frye, Arcadia

Science:

R. M. Evans, Quincy, *Chairman*
A. H. Fillers, Kissimmee
M. P. Geiger, Homestead

Vocational:

S. A. Draper, Leesburg, *Chairman*
J. M. Feagle, Dunnellon
W. W. Gay, Largo

Avocational:

Claude S. Ogilvie, Sanford, *Chairman*
W. D. Wilson, Fort Myers
E. L. Robinson, Tampa

PHYSICAL FITNESS AS AN OBJECTIVE IN HIGH SCHOOL EDUCATION

By W. D. Wilson, Principal Ft. Myers High School.

Surely there is no one who will deny that the perfect man must be not only physically, intellectually and spiritually sound, but physically, intellectually and spiritually well-balanced. Nor is it believed that any man in this audience would have for an educational ideal a standard which did not include the full development of these three attributes.

Our public school system has taken for its chief function the development of the intellectual man. In the light of present-day needs this is right and proper. It would be absurd to say that our secondary schools should be turned into playhouses or that they should become sanctums of worship. However, we cannot separate the three functions. They should not be separated. While the intellect requires our chief emphasis, the very inter-dependence of the three makes it imperative that we devote some time and energy to the other two. Indeed, the school has become such a vital factor in social development, and society has become such a complex and rapidly-evolving institution that changes which once appeared radical now seem only too conservative. In other words, while we still retain the core of our earlier curricula, it is becoming more and more necessary to reform them from within, in order to avoid the confusion which always accompanies the reform from without.

No, I shall not disappoint you. You expect me to advocate something radical, theoretical and impossible. While I shall strive to be practical, it goes without saying that I must dwell somewhat in the land of Utopia in order to be consistent.

"Physical fitness" is a phrase which particularly appeals to me. It is a much broader term than **"athletics."** The latter is implied in the former, but the former implies a great deal more. Athletics has its place in the program of physical training, and a very important place at that, but we must not think that physical fitness can be obtained through athletics. It can be obtained for a few. Often its results, however, are not conducive to physical fitness but are positively harmful. Its greatest fault lies in the fact that it does not reach those who need physical training most. What we need is a program

which will insure **universal** training throughout the school. Note that I do not say **military**. I am not opposed to military training as an exercise in the training period but it should not be used exclusively. I have said that ours is a complex society. Our aim should be to train citizens who can fit into that society. Physical development which achieves that end is what we want—what we must have if our work is to be effective, far-reaching, permanent. Bodily strength and vigor are necessary, vitally necessary, in almost every phase of human endeavor. Its presence is indispensible for the many and various fields of industry; for the vitality of the race and the sake of generations yet unborn; and for the individual happiness of every living human being. As a part of education it is therefore fundamental.

Argument for physical fitness is not necessary. For that reason I shall not apologize for the dogmatic statements already made. Rather, I shall hasten on and try to outline a practical program for the average Florida high school. The main outline of this program follows in general that of the report of "Physical Education in Secondary Schools" made by the committee appointed to thoroughly investigate the matter by the National Educational Association. But before taking up the outline it must be stated that, theoretically, educators are convinced that physical fitness is more important than quantity of knowledge; practically, their convictions do not result in action. Further, it must be noted that outlining a program for the high school is very similar to that for the upper grades, since modern psychological authority shows that the development of an individual is mostly a continuous process and that, therefore, it is unwise to make any sudden or abrupt break between the elementary and secondary grades or between any two successive stages in education.

Physical Fitness Program

A. **Physical Examination.**—This should be made by a competent physician employed for the purpose. The physical director should assist and keep a record, on an individual card provided for the purpose, of such data as eyesight, hearing, teeth, weight, bodily strength, lung capacity, cardiac efficiency, and general physical defects. A mental examination, for subnormal and super-normal pupils, made by a trained psycholo-

gist when one is available, should endeavor to ascertain the condition of the pupil's nervous system. This is important because his nervous condition has so great a bearing upon his attitude and capacity for both work and play. These physical examinations should begin about the seventh grade and should continue through high school. They should be given at least three times during the school year: at the beginning, mid-term, and end of each session. Each record card should have a blank space for notations by the physical director of any suggestions the physician might make concerning each pupil. These suggestions should be **followed up** by planning work and play accordingly, and in cases where physical defects need medical or surgical aid by consulting the pupil's parents.

B. **Instructions in Health Problems.**—In the grades these can be given in connection with regular hygienic or physiological work. In high school there should be regular periods of about 15 minutes immediately preceding the exercise periods. Perhaps one of these class periods per week would suffice. Such subjects should be discussed as: (a) the practical elementary problems of health, for example, exercise, sleep, diet, sex, bathing; (b) The general conditions related to health, such as, ventilation, temperature, posture, etc; (c) Public health problems, like sewerage, infectious diseases and water supply.

C. **Physical Activities.**—The first of these to be considered is **equipment.** Whenever possible a good gymnasium should be provided. However, I am not over-enthusiastic on the subject of gymnasia in Florida. Our climate is so mild that unless rainy weather prevails it is almost always possible to have outdoor exercises and games. Therefore a well-arranged playground is of the greatest importance. Dressing rooms, showers, and individual lockers must be provided. Specifications, plans, etc., need not be given for these. But it is worth emphasizing that the dressing-room and the bathroom need the closest supervision. Either the physical director or his trusted assistant should always be present.

Time Allotment is the second consideration. At least two double periods per week (45 minutes per period) should be given. Three would be better. In the smallest high schools the last two periods could be used in a seven-period day. In larger schools two sections might be arranged, the three afternoon

periods divided into two of 62½ minutes each, or an extra period might be added. This plan would be much better, for an eight-period day with plenty of outdoor exercise will prove far less irksome and injurious than the present plan of seven periods with only the athletes taking exercise after school.

Kind of Exercise must next be considered. This is of prime importance. It should, of course, be varied, but the main object must be to bring into play the large fundamental groups of big muscles. Vigor, power and endurance are the aims sought. Perspiration must be evident or results will be lacking. Exercises which bring out skill, grace and alertness are important but supplemental. Gymnastics, athletics, and team games for all pupils should be the instruction. Swimming, when convenient, should also be added. Care must be taken to see that the exercise or game does not become stale. Novelty or rivalry must ever prevail or the best results cannot be obtained.

Last but by no means least is the **Physical Director.** He or she is the key-stone of the arch. Only those who represent the highest ideals in morals and personal character should be selected. The N. E. A. Commission on Reorganization of Secondary Education in a recent report said, "With the adolescent group the basal virtues are **caught** through the inspiring personality of teachers during their direction of activities, more often than they are **taught** through definite moral instruction in the classroom." Lessons in moral instruction may point the way to what is right, but only moral action can knit together the fibres which form character. Team games under proper direction offer a wonderful opportunity for moral development; under improper direction they lead only to moral deterioration. If the "win at any cost" idea is encouraged by the coach, or even countenanced, he can readily become the most potent factor in the community in the destruction of the moral ideals and ethical standards of future leaders.

D. **Credit.**—Class instruction should receive credit on the same basis as other subjects. All exercises should receive credit on the basis of other laboratory courses. Grades should be given according to quality of work and effort of the pupil in daily practice. At regular intervals tests of minimum physical proficiency should be given.

In conclusion I desire to ask two questions which I trust

the discussion which is to follow will endeavor to answer. First, is it too much to expect high school credit for such a physical training program as has been outlined? Secondly, should our Normal schools and Teachers' colleges require each student to prepare himself or herself for the carrying on of such a program before they are given a diploma or certificate of graduation?

THE SCIENCES IN OUR HIGH SCHOOL—SUBJECT MATTER, EQUIPMENT, METHODS AND THE PREPARATION OF TEACHERS.

By A. H. Fillers, Principal Kissimmee High School

The few minutes that have been assigned to me for a paper on the discussion of this topic, which has to do with such a vital subject as concerns the secondary schools of Florida, are not sufficient for an account in detail of the work that should be accomplished in the sciences of our high schools.

I shall attempt, however, to mention some of the fundamental aspects pertaining to these courses. A certain class of educators is convinced that the science subjects now taught in high schools, whatever their results in other directions may be, do not come up to the standard that should be required in general education. Physics and chemistry have apparently become so formalized and rigid that their study seems to yield little in the way of abiding interest or insight, thus a demand is being made for a new course, that will merit the recognition of our colleges and universities. This course is called beginning or general science.

Our knowledge of the natural world and physical forces is increasing with a rapidity and certainty almost beyond the comprehension of the human mind. And it seems that the general fund of knowledge that the great masses of humanity desire, some of whom are laboring in the humbler walks of life, require little if any special training in the technique of science, but they need to comprehend and see the significance of science as it spins and weaves the social fabric of modern civilization.

An over dose of specialization is ruining our science courses in the high school. Our universities train men and

women to do research work, in their graduate schools. But I am afraid science falls far short of fulfilling its mission unless the fruits of scientific research fall upon fertile soil and take root and grow in the daily life activities of the masses.

We have attempted to feed the pupil abstract principles never pausing to inquire about his likes and dislikes or to study the fundamental characteristics of the adolescent mind. At this age we should emphasize applied science rather than theoretical science that is so often dwelt upon, in the teaching of science in the high school. A course in beginning science properly conceived, has unity and logical development, it is adapted to the adolescent mind and at the same time appeals to the pupil as something worth while. It trains in scientific thinking and deals with material with which the pupil is already somewhat familiar always passing from the known to the related unknown. It deals only with the concrete as a major process, but by degrees with carefully planned lessons many abstract principles may be successfully taught. By this means the pupil gains control of his environment and the significance of science with all its complex problems in modern life.

The science involved in the raising of cabbage, lettuce, or tomatoes, requires a knowledge of the character of the soil itself, as geology; some knowledge of the structure and composition of the soil and soil physics, or agronomy and chemistry; some knowledge of plant growth and plant life, as botany; and a knowledge of insects and other forms of animal life, as zoology. During the first years of secondary education we should not insist that pupils separate these elements of nature that are so beautifully and wondrously fitted into a whole.

A teacher once said to me, "My class asks me too many questions." I believe that spirit of inquiry is a spirit that makes for sanity and action, a spirit which is slowly but surely increasing in its influence. Any subject that can be used to stimulate and cultivate this spirit is of the greatest practical importance in the education of the boys and girls of our high school. The true spirit of science is more easily and effectively developed in contact with the concrete materials of science that the student can see, touch, and handle.

Mr. Coulter says information is always second hand while knowledge is first hand. Science cultivates the power and habit of observation when laboratory methods are used, at the

same time the course in general science should be one of information. It should be coherent, and continuous throughout the year. It takes the pupil as it finds him at the beginning of the year, with little acquaintance with science and scientific habits of thoughts and attempts to turn him over at the end of the year with a little of both.

Of the eleven per cent of students who finish the high school about one in three goes to college. So it appears to be the proper thing to offer a general course in science that will meet the needs of those who never attend higher institutions of learning. A course should not be given to meet the needs of a group above it, for if it does it is organized to suit a very small percent, in no case exceeding six.

Beginning science does not require an elaborate outlay of expensive apparatus, on the other hand the equipment may be crude and very inexpensive. The teacher may have pupils make suitable apparatus, with little or no expense. Improvised apparatus many times answers the purpose just as well as that furnished by supply houses. There is no better way to show osmosis than to take an egg, and break away a part of the shell on one end and pierce the other with a glass tube or soda fountain straw, and place one end in a glass of water. Boys in general science take delight in making fireless cookers, arc-lights, electro-magnets, seed testers, etc. If the students are permitted to use common everyday materials, the course will become real and not artificial, as it is now written in the laboratory manuals.

The course in general science has not been standardized sufficiently to enable any teacher to successfully conduct it unless he or she has a broad knowledge of the subject. It is a failure if taught as a special science, and as such would never cope with the courses of physiology and physical geography.

Karl Pearson said "Modern Science in training the mind to an exact and impartial analysis of facts, is an education specially fitted to promote sound citizenship." Another educator has said, "The aim of scientific thought is to apply past experiences to new circumstances, the instrument is the observed uniformity of a course of events." Huxley declares that the method of science is the method of common sense.

It is difficult to determine just how much preparation a teacher of beginning science should have. A false impression

has gone out to the effect that any one can teach beginning science. I personally believe that it requires more training and experience, that is, a far broader knowledge than for any of the special sciences.

Courses in zoology and botany are more specialized and perhaps since they are better standardized, are more successfully taught in our high school than is general science. The great state of Florida with her sea shores, lakes and rivers, furnishes a vast field for study in both of these subjects. A great variety of specimens may be had for dissecting and observation, from the crab and the starfish to the boll weevil and grasshopper. In all parts of Florida there is a common element of newness. She has a greater variety of fruits and flowers than has any state to my knowledge. Field trips should characterize the courses that pupils may study nature in all its splendor; that they may study insects, bugs and beetles in relation to their natural habits and environment. In this way the practical aspects pertaining to the courses may be encouraged and emphasized. Any teacher who is filled with a love for nature and natural history, having had ten or more semester hours in each subject should be prepared to teach the work. If brain, eye and hand are co-operating the developing mental effort is increased and the mental action and reaction are strengthened. So many people think that it requires a great deal of expensive apparatus to successfully teach courses in Zoology and Botany. I believe with a good field glass, a certain number of dissecting sets and pans, and as many simple compound microscopes as can be afforded should make up the required pieces of apparatus. It is possible to teach the courses with very little equipment, but the better the equipment the better the class of work accomplished.

The fundamental trades as carpentry, masonry, blacksmithing, wheelwrighting, painting, and shoemaking have all provided education for the human race. The secret of their success is, however, that they deal with the concrete. They handle crude materials from the beginning. Physics at one time was designated as natural philosophy, which was studied primarily for the purpose of formal discipline. It was taught as such by the Greeks and Romans. This doctrine of formal discipline has close kinship with Platonic thought and during the time of Aristotle it consisted in endless hair splitting.

Observation and experimentation as well as emotional feeling were totally overlooked. Students were expected to study and learn physics by juggling with words and definitions and not by studying the natural phenomena of the science. As early as the year 1750 the spirit of unrest developed to a stage where the public attacked it for a real education. Monroe came to the rescue by assignment of definite tasks which illustrated the physical laws. It has long since been recognized that a child does not learn one thing learning to do another. It is sometimes difficult to teach a child that there is a difference between having to say something and having something to say.

Content, therefore, should be emphasized, for the phenomena of physics crowd upon individuals in every walk of life. Take, for example, the subject of heat. One can find subject matter in the study of cook stoves, furnaces, fireless cookers, houses, clothes, frost, dew, sunshine, etc. You may take any topic from mechanics to electricity and every principle may be applied to the every day walks of life. The equipment with which to teach this course should be sufficiently complete, including home-made apparatus as well as the best that may be furnished by supply houses. Physical principles remain constant but the methods and applications of these principles are changing rapidly; so new supplies and devices are necessary if the teacher expects to keep abreast of the times.

It should be the aim of colleges to train men in physics who expect to teach the subject in our high school in a different way from those who are planning to do research work. From 20 to 21 semester hours should be spent in the department of science to enable one to successfully teach the subject in our secondary schools. It is true that some teachers who possess good common sense can teach physics with less preparation, provided they have had some practical experience. Future physics teachers should take a course in general mechanics, and an elementary course in instrument making. These courses will give the teacher additional confidence in his ability to handle the course, and will be a means of inspiration to the class under his charge. These courses will also enable the teacher of physics to make finer distinction between different physical quantities. It is true that this

requires some deep and accurate thinking. The results, however, have been that in the end the subject has become more interesting and clearer to students who make these closer observations.

Physics is applied mathematics. Problems should, therefore, be emphasized in an elementary course, but it is possible to lay too much stress upon this particular phase of the work. As a prerequisite students should have at least two years work in mathematics. Because of the nature of the course there are some girls who find physics more difficult than boys. To offset this girls may be encouraged to do more collateral reading, and with special reports from time to time will learn many physical principles and will receive additional enjoyment from the study. More is to be gained in securing the proper scientific spirit than there is in learning the various physical laws.

In this age of modern civilization, this period of reconstruction, it is hardly possible to keep apace with all the inventions and their application as they concern us today. The circumstances should be arranged so as to accommodate the majority of our boys and girls. We should provide ample means by which they can secure the fullness and broadness of vision that will enable them to meet the conditions of modern life. Science is a subject that concerns men and women of every walk of life and if all schools would provide suitable accommodations, thus equipping laboratories with apparatus and supplies sufficient to meet all requirements, then our boys and girls would go out from the high school with a practical fund of knowledge that would be useful to them in whatever course they pursue, whether it be to enter college or to return to the farm. In speaking further concerning the apparatus needed for the department of physics, I will say that improvised apparatus often answers the purpose just as well as quite expensive pieces bought from the best supply houses.

For instance the Wheatstone bridge may be constructed by use of a few coils of resistance wire, a simple conductor, a meter stick and a galvanometer. An effective and sufficient rheostat may be made by adding a small amount of salt to a jar of water. Gentlemen, it is not my intention to discredit the importance of scientific apparatus, but where the finances are limited and supplies are difficult to obtain, this improvised arrangement often gives similar results. But we should al-

ways remember that the various equipment is as influential in the education of pupils as the teacher. Proper equipment is essential and perfectly indispensible. The teacher should have the facilities for carrying out the course without following the textbook too closely. Teachers should have flexibility and freedom, and the co-operation should be such that labor and time might be saved on the part of individuals.

The goal in science should be reached by a series of steps leading through the course by means of subjects. The Course of Study should be stated in terms of the individual rather than in terms of the subject. There should be training in terms of both speed and accuracy. Merely to learn the operation of an automobile is insufficient, one should know the parts and understand their relation to each other. The entire mechanism of a gasoline engine should be understood. Most students of high school age can drive some type of car, but very few of them are informed about its motive power and mechanical operation.

This is a practical as well as a scientific age and there is no doubt that the practical should be emphasized in the teaching of physics. It is well to visit automobile ships and garages, electric power plants, artificial and cold storage plants, with a view of studying the workings of the various forms of machinery as found in such places. So much for physics.

Next to physics, in importance, is chemistry, and it appears to me to be advisable to offer a course in organic chemistry to meet the needs of students wishing to enroll in home economics. Much practical and scientific work can be accomplished with this type of a course while working with the various foods, dyes, and simple elements. It could be offered to girls in the ninth grade instead of general science and I believe it would be found as beneficial as any course that could be offered at this particular time. Just any teacher of science can not successfully handle the course. It would require special preparation in the chemistry of foods, full knowledge of methods of testing for the various elements, and some knowledge of bacteriology, etc. The apparatus could be about the same as is found in any well equipped chemical laboratory.

The course in organic chemistry has been offered in our high school for a great while, and has become so formalized

and rigid that many students fail to appreciate its value. In schools with well equipped laboratories, having all the chemicals, reagents, and supplies necessary to accomplish the required amount of work as laid out in our State Course of Study, there is probably little trouble in keeping interest and enthusiasm aroused. But in the smaller schools where the supplies are limited, and very scant, I believe it takes an unusual teacher to accomplish much in the study of chemistry. By alternating recitation and laboratory work one can keep the interest up better than by allowing either to continue without the other. By means of experimentation, students develop a scientific attitude that if guided by the proper type of instructor usually results in a desire to specialize in chemistry. In order to enrich and expand upon the field of chemical knowledge, as many reference books as possible should be frequently referred to in this course. Reports by the pupils should be required at intervals during the year. As in physics and the other sciences, visits should be made to factories, and canneries, ice plants and the like for observation and study. Practical and applied chemistry has a more important place in our secondary schools than purely scientific chemistry. Since such a few of our students attend college after graduation, I believe in emphasizing those things that will aid most toward the making of good citizenship.

Therefore when a principal enters a science room he should look for the following:

1. Are the pupils all attentive and interested?

2. Do the students understand what they are called upon to do?

3. Does the class as well as the teacher seem well prepared for the work in hand?

4. Does the teacher carry the class by telling all, by talking much, the class assuming the attitude of passive onlookers?

5. Is there the air of active business-like dispatch of work, and enthusiasm for the work to begin with no more noise and bustle than go with a well organized and managed workshop?

6. Is the subject enlivened and enriched by bringing out its points of contact with kindred school subjects and with every day affairs?

7. Does the work show evidences of plan and system on the teacher's part; that is, are the movements, connectedness and purpose of the subject matter described?

8. Is there strength in the ability of the class, to analyze the conditions of the problems in chemistry and physics, and to apply the principles to every day affairs?

9. Do the dominant methods practiced by the teachers seem to be good ones or are they somewhat varied?

10. Are the discipline and moral tone good? Is the discipline enforced, natural, or spontaneous?

This matter of discipline, seems to give some teachers more trouble than anything else. Laboratory work should be conducted with as little confusion as possible. Many of the accidents we hear about in the state could have been avoided if the teacher had prevented unnecessary confusion. As a whole I believe the science courses of our high school come up to the standard of efficiency that is required by our University. But there is much room for decided improvement and I should like to hear from some science men who have suggestions as to methods of improving our science department.

"EXTRA-CLASSROOM ACTIVITIES IN HIGH SCHOOL"

By C. S. Ogilvie, Principal Sanford High School.

This discussion will be limited to those activities of the high school which tend to develop an individual's ability to utilize the common means of enjoyment. The subject of athletics is, of course, one such activity. But, due consideration has been given to this phase of our subject in the earlier part of the program and it will receive no further attention.

Generally speaking, the high school has failed to give sufficient attention to the extra-classroom activities. One's education should equip that individual to secure a healthful body, an enlightened mind and an enthusiastic spirit. These are the attributes to an agreeable personality. The extra classroom activities can be made to harmonize with class work so as to produce these three: A HEALTHFUL BODY, AN ENLIGHTENED MIND, AND AN ENTHUSIASTIC SPIRIT. No student body would be a desirable one without

an enthusiastic spirit, without a good school spirit. A student body lacking enlightenment and athletics would be just as undesirable. Then the school should organize and direct these activities which develop such qualities. Heretofore discipline has been sought exclusive of such activities as the school literary society, orchestra, plays, pageants, festivals, etc. It is my belief that these neglected activities offer the best disciplinary means.

Please do not misunderstand me! For I know that one thousand literary societies and ten thousand baseball teams would not discipline a certain class of students found in every high school. I realize that to spare the rod on some is but to spoil them. But, there are others whose conduct is more easily influenced by suggestion—by honor-roll privileges, athletic eligibility regulations and the more cultured persuasions. However, discipline is a secondary argument in our discussion. The well-being of the individual and of society as a whole is our primary argument for the extra-classroom activities. We agree with the psychologists that INTEREST is the most powerful force in governing our activities. Fervent interest is enthusiasm, without which "nothing great was ever accomplished." The extra-classroom activities offer this interest in school work which keeps many students, especially boys, in school many years longer than they would have otherwise remained. Why then neglect such impelling motive powers and allow the interest of the student to lead him away from school? to illiteracy!

Supposing we agree that extra-classroom activities are essential to a well organized high school, our attention is called to the selection of such activities and to their proper direction.

First, the work of a well directed literary society is just as important to the individual and to the community as any study in the high school. No one will dispute the fact that the average high school literary society is a farce. The student is not to blame—he has not been led to realize the value of the work. A few years after he leaves the high school he then says that he did not see the golden opportunity in the society. The work was a burden. There was no enthusiasm in the activity. It is even possible that he had been driven to take part on the programs—his interest had not been called upon. Are we to continue directing our literary societies in this manner?

It is an accepted fact that some are born orators, others musicians, and still others comedians. But, the purpose of the high school literary society is to interest and develop the various literary tendencies of those composing the student body. No speaker can hold and charm an audience, no debator can be quick, ready and composed, without infinite practice. The high school period is the opportune time for these slow efforts. It is the duty of the educator to cause the student to realize the tremendous cumulative power that lies in time. There is no reason why every person should not be able to think on his feet, and to this end the literary society should strive.

Such favorable literary work as we have described must necessarily be that of a well organized and well directed society. In the encouragement and leadership of the type described, the personality and point of view of the teacher is all-important. It is absolutely essential that he remember the point of view of the student and that he endeavor to create a spirit of enthusiasm for the work. Unfortunately most high school literary societies are directed by teachers with the most formal point of view; they drive the students thru the work as if they were a crowd of conscripted soldiers or convicts. The natural result is that students dislike the work instead of enjoying it. It is my conviction that the literary society should not be forced upon any student. But, the student's interest should be so aroused that he would wish to take part on the program as often as possible. It is not my purpose to say when the society should meet, how many societies each school should have, and the like. However, I will say that each society should hold its meetings at the time most convenient to the community, not to the teacher; that each student should take an active part on the program at least once a month. This may call for two or three societies in a school. It is possible that two or three would not live to begin with, but such an interest should be gradually developed that a society should live for every forty or fifty students. For a school that is sufficiently large, each class should have its literary society which meets once a week; and, once a month the several societies should have a joint meeting. It is possible that such a plan would give a classification of the work and at the same time create a good spirit of rivalry.

Similar to the athletic teams that represent our high

schools, literary teams would serve as a great stimulus to the work. I see no reason why we should not have debating teams working for the state championship just as football teams. The honor of representing a school on a debating team is of no less importance than that of representing an athletic team. When the state is organized into several districts for this purpose an important step will have been made toward this inter-scholastic literary work.

As a special phase of literary work we might consider briefly the minstrel and class play. Generally, these are staged for the sole purpose of raising funds. Of course, this opportunity of participation is of no less importance. These performances will develop a feeling of ease before an audience, and will gradually build up an habitual good taste in choosing plays to be attended outside of school, if properly directed.

Akin to the literary society work we have the high school lyceum course. This affords an opportunity of attending instructive entertainments and amusements. The high school should stand for such attractions as offered by the best lyceum bureaus. If these are given under the auspices of some organization outside the student body, they should receive the hearty support of the school. When conducted by a class or high school organization there should be no other lyceum course in town. And there should be no guarantee—the course should be given on its own merits.

Next, our attention is called to the high school orchestra. The opportunity thus offered may be divided into two types; namely, (1) training thru participation in musical performances, and (2) training thru listening to music. Both types of enjoyment play a prominent part in adult life; therefore training for each should be provided. Enjoyment thru listening to music plays a much larger part in American social life than does enjoyment thru participation. The high school orchestra is possibly as good an advertisement for the school as any offered by the extra-classroom activities. No school exercises are complete without its orchestra. Every public gathering is an opportunity for it.

In closing, such extra-classroom activities as the Junior Prom and high school dances do not receive my endorsement. If high school students attend dances they should be well planned and properly directed but not by the school. Such

direction should be independent of the school authorities. The school teacher has his hands full without encouraging the more undesirable activities from the point of view of the great majority of the patrons.

Again, the extra-classroom activities are just as important in the development of the student as any classroom work of any high school.

PROPER VOCATIONAL GUIDANCE FOR FLORIDA HIGH SCHOOLS

By S. A. Draper, Principal, Leesburg High School.

Were I called upon to sum up the subject, "Proper Vocational Guidance for Florida High Schools," in one sentence, I would write that sentence thus: Proper Vocational Guidance for any system of schools, is that which holds the children thru the entire twelve years of their school lives and turns them out at the end of that period as fully developed, mentally, physically and spiritually as possible. I would not try to confine guidance and direction to the high school but would have the schools commence to guide and direct at the very beginning.

My plan of guidance would presuppose, first of all, teachers "thoroughly furnished" unto all good works, earnest, efficient leaders, not time servers and croakers.

Secondly, it would presuppose a long tenure of service in a locality in order that the course of work outlined in a given district would not be interrupted until it had been worked out and a definite show of fruits made.

In the third place, a careful survey of a given locality would necessarily be made with a view to discovering the possibility for outside development or for furnishing trained recruits from the school to the various industries in said locality.

And last of all, this plan would look to an all round standard of education as intimated in my opening sentence.

Such guidance would not appear, possibly, in any study course as a specific term but would be so thoroly incorporated into every school activity that it would hold the child and grip the parent. It would take care of a great deal of the lost motion so evident in our schools—evidenced by the questions

of, "Why"? and "What's the use"? of dissatisfied students, and by the fact, too, that high school students, almost to a unit have at best only the vaguest ideas of what they want to do or how to go about doing what they want to do. Worse still, most of them have little idea what fields are open to them. So it is plain that some bridge must be found to span the gap between the high school and college, technical school or business career.

In order that the bridge be entirely effective and satisfactory it must be understood that many of the branches now taught in the schools are pre-vocational in themselves. When the teacher of the seventh and eighth grades begins to instruct her pupils in writing, say, let it be part of her business to urge clear, legible, handwriting as a part of the child's business equipment. No clerk, book-keeper, stenographer, railway mail clerk, paying teller, bank cashier or others of a long line of employees, may demand and obtain as much pay as others if he does not write a well-appearing hand. The same ideas should accompany the work in drawing. The teacher should blend the utility of the subject with the esthetic side. The love of color, light, shade, tint and outline should first be uppermost, but the progress would be in many instances more satisfactory if it seemed to be leading somewhere. The instructor must be a lover of art, must know the subject, know painters and their productions, and be able to point to the masters of art and the influences they have had in the world as benefactors. She ought to know that out of her class might come designers, illustrators, painters, architects and builders, and her hand should be attuned to the vibrant touch of ability and she should cultivate the marked talent with encouragement and constructive advice. She should use the pages of the magazines and point to the fact that some of the best paid people are the artists and designers whose skill is employed by the publishers and manufacturers everywhere. The architect must know drawing, the metal designer must know it, the able printer should have a knowledge of it and so down a long list of artisans, photographers, carpenters, tinners and many others. So it is shown that this branch of work is important and none of the work devoted to it should be wasted or aimless. In the high school the student will need little guiding beyond a tactful fostering and feeding of budding taste and

partially aroused skill. In the high school he should have placed at his command a market for his craft. The possibilities of each branch of his art should be shown, both as to money value and culture. He might be shown that his government, for example, has need at all times for men of his type if he can meet the requirements, and those requirements could be put before him. It could be shown, that as a class lithographers draw as much as four hundred dollars per month and they are employed in all large printing establishments. Merchants and milliners in large cities never have cut designers enough to go around and all of these facts should be known and understood. I would recommend, too, that every method used should be standard and as such productive of useful information. I mean by this that no effort be expended simply for the sake of such expenditure. The student did his practicing in the lower grades and here he is capable of doing work of a more finished type. As with these two instances, so with every part of the curriculum. No school work should be accomplished or undertaken that has not a definite point and that point should be made to enter into the innermost being of the child even to the penetration of his soul so that the letter may be made one with the spirit.

Again, the state, county or community should establish and maintain an inspirational bureau which would supplement the knowledge and effort of the teaching force and furnish accurate and convincing information to both student and parent as to any industry. For instance, a boy has acquired some knowledge of electricity and is sure he wants to become an electrician but is unable to convince his father that there is a future to such a career. This bureau and all the school proper should have at command all needful information as to the various branches of electricity, where each branch may be most profitably pursued, the best technical schools to enter, the amount of preparation necessary, the cost, what financial returns might be expected and the general future of men and women engaged in such work.

In the operation of this bureau much valuable material may be obtained from the government. Motion picture films, stereopticon slides, tables and cost scales may be obtained directly from many manufacturing concerns, such as the General Electric Company, Schenectady, New York. They will furnish

both films and slides illustrating every phase of electric work and engineering and all this may serve its purpose in aiding boys and girls to make up their minds as to what they will do as a life time calling. I have two boys now who have seen enough from exhibitions of these slides to cause them to seriously consider taking up electrical engineering as a profession. This bureau and the school should act as a clearing house for all the trades and callings and I would suggest that the bureau as I have it in mind be made a state, or at least a county institution. It would reach more children in that way and would be much less expensive than if each school should undertake to operate one.

I advocate a state director, or vocational engineer, who will have charge of all the compiled information, the machinery for its exhibition, and the general knowledge of the work necessary for its success and you will understand that his work must be supplemented by expert and sympathetic direction by the teachers and instructors. And besides all this, it must further be understood that no man or agency has any right to take from the child the right of self-determination and self-selection.

Here a brief outline of my work was given orally with a few minutes exhibition of material.

Now, having discussed the subject from a specific point of view let me turn to the general side and look at that for a moment.

In doing what we do, let us not forget that the real function of the high school is to supplement the elementary school and to aid the pupil in arriving at that wonderful period of self-discovery which is his rightful heritage from his school. Dr. Eliot spoke of the mission of the teacher as being the dispenser to the child of "his life career motive." This is the guidance that most concerns us. It little matters what vocation may engage the child in his latter days if we, who are most responsible for his motivation, do the thing so well that he will find our judgments good and advice sound and sincere when he comes to make a reckoning with the forces that shape his ends and ultimately bear him out into those realms where force of character, will power and proper habits will serve to help keep his head up to whatever winds may blow.

In a school system laid out with a view to maintaining per-

fect harmony with all parts, each teacher knowing fully his part and realizing completely the value of co-ordination of parts, guidance would be lost sight of in perfect functioning. In such a system, no branch could be or would be called "dead." If Latin were taught, and I am not sure it ought not to be, its use, its application to life, its expressiveness and possibilities would all be real. If so taught, children who are sure they will spend their lives upon farms would not feel that they had spent a lot of time, to no purpose in learning Latin conjugations and declensions. On the other hand scientific terms, hitherto meaningless, would burgeon with meaning. Words of Latin derivation—and they are many—would assume a significance not as often vouchsafed to students as should be. Any system of education, any school, or teacher, falling short of this degree of efficiency fails sadly, and we must admit, that we, as a nation, have not approached anything like the achievement we should. Our failure to do so was impressed upon us without a shadow of uncertainty when we saw our boys gather for service from factory, field and plain. Hundreds of thousands of them answered the call to the colors who coul dgive no reason why they should bear arms against a foreign foe except that they had been required to do so by the government. They had no idea of Americanism, of loyalty, of devotion, or, of honor even. Thousands of them were native born sons of this land. They had been to school. I am not now speaking of illiterates. I am speaking of the untaught, who had been taught. Somebody had blundered and miserably failed.

We must begin NOW to refashion and to shape anew, our educational system. It is now time that we turn our faces toward a new goal of achievement, that of using every moment of the child's time with such accuracy that we may make a trial balance at any time. It can be done. That other ninety per cent can be made to feel the full benefit of all the labors and efforts that must be made for it. Not only can this be done, but it must be done. Those now engaged in the work of education in all this land have the challenge to this end lying before them. They must take up the challenge and face the fight or get out.

We have set for us the greatest task that time, progress and civilization ever unloaded upon a set of shoulders. We

have the task of proving to the world that the great American democracy is the most efficient, thoroughly humane and satisfactory government that exists, and we are to write that proof indelibly upon the hearts and into the lives and conscience of the millions of youths who throng our doors, and from whom must come the future guides and leaders. A gigantic task, yes. But if we accomplish it as we must, we and our successors will be able to say we did a mighty task in a big way.

Education is only successful when it enables the individual to prepare for the thing he is best fitted by nature to do. Too few realize this and place too much stress upon the grandeur of elevation and the greatness of leadership. Too much stress upon super-achievement and too little upon more complete development.

Children are placed in school from the ranks of what are called the "common people" with the thought that they must acquire something that will lift them out of the mire in which the father walked and the mother existed. They are told that they must go to school to acquire a proficiency that will enable them to do something better than follow in the footsteps of the father. Every child should be developed to the fullest of his powers but why make him ashamed of his parentage? Why can we not teach the honor of toil and help him to know that, "Heaven is within us?" Why plant an urge in the heart that will make bread-winning hateful and irksome? If we had done more home-making and citizen-growing in the years before the war we would not be so fearful of the "Red Menace," nor so beset with fears of unknown evils lurking behind the shadows of our mistakes. The schools are never going to produce the results they should nor receive the recognition they crave until teaching becomes a full profession and salaries are paid to the teachers and workers sufficiently attractive to hold them and encourage them to obtain a thorough professional equipment. A girl will not be encouraged to become a home-maker if her teacher is a young thing with poorly developed ideas of her social and civic responsibility. A boy will not find much to hold him at the feet of a drone or professional misfit.

The need of this day, above every other need is of consecrated efficient teachers, people with vision and life grasp. There is no doubt that we have reached a crisis in our affairs

that demands of us that every faculty shall function, every nerve must respond to the need of the hour; that need being that we do not fail our nation, or our nation's children. We have long stood at the foot of the working scale so far as wages and recognition have been counted but we have shown there is an education which will save the world from barbarism and another class of educators have demonstrated that another sort will plunge all the human race into a maelstrom of ruin, rapine, greed and loathsomeness from which it must needs emerge into a desolate sea of hopeless misery. Happiness, Hope, Faith, Love and every virtue we count good in our land and is counted good anywhere hang in the balance and the thread is as delicate as a hair.

We cannot allow other forces to rise in our places and snatch from us the most precious opportunity that has ever lain across the path of a profession, that of framing policies big enough and comprehensive enough to deal with every phase of our educational development. Our task again, as vocational directors is not alone to follow the demands of a frenzied and divided public that has never realized and perhaps never will realize the fact that every problem that confronts a people or nation is an educational one, but to stand squarely, facing the problem as we have faced it, to stand for the whole people, not a part or a parcel, but the whole. Our task is to stand for better manhood and womanhood, to stand for the life against gain, to see that every young life that reaches tender maturity at our feet must first of all be consecrated to the nation for which we live and have our being, and being consecrated to that nation will have some degree of consecration to the Master of Masters, whose approbation we all need and desire. Socrates in talking of testing the young for leadership declares, "We must inquire who are the best guardians of their own convictions that the interest of the state is to be the rule of all their actions. We must watch them from their youth upwards and propose deeds for them to perform in which they are most likely to forget or be deceived, and he, who forgets, or, is deceived is to be rejected but he who remembers and is not deceived is to be selected."

To my mind this sets the standard right for us. We are the guardians of the nation, in that we are keepers of the nation's children and if we fail to make them proper and safe

guardians, it is my opinion we have failed in every point and that the transcendent ideals of our fathers have been lost sight of in unfaith, unrest and skepticism. If we fail, the windrows of our dead at home, in the islands of the sea and in Flanders Field will stand silent apart eloquent testators that that finest dream of mortal man has faded. But we must not fail. We have done too much, suffered too much, withstood too much and have such a glorious future if we but take care of the present opportunity and wrestle with the criticisms and shoutings against us from without and handle the divisions within our ranks. Prof. W. C. Bagley, in speaking before the conference in Cleveland not long ago, said, "It is your problem and my problem; your duty and my duty. At no time in the history of our country has the need for devoted and consecrated action been so imperative as it is today. Let us stand shoulder to shoulder within unbroken ranks and see the battle through to victory."

VOCATIONAL GUIDANCE FOR FLORIDA HIGH SCHOOLS

By J. M. Feagle, Principal, Dunnellon High School

All who have studied the question of Vocational Guidance in our schools will, no doubt, admit that there is vital need for greater emphasis to be placed on that part of our school work. When we consider the fact that a large number of our boys and girls who enter high school—and this is a small per cent of those who enroll in the lower grades—never graduate from the twelfth grade, we must realize that our schools are failing to a great extent to hold the interest of the pupils, and make them feel that it is worth while to continue till they graduate. For my part, I believe that the one thing most responsible for this condition is improper vocational guidance, so necessary all the way up through the grades.

This assumption is greatly strengthened when we look about us on every hand, and find so many lives crippled or totally ruined by what we may term the misfits in both the business and professional world. We see people all around us attempting to succeed in lines of work for which they have no natural ability whatever, and of course making miserable

failures. These people, in most cases, are just from our schools, and if these schools had guided them properly in the choice of their calling, fewer of them would be spending their energies to so little purpose. There can be no sadder picture in the world than to see a bright, promising young man or woman, who would have unlimited possibilities in his proper field, making a failure in life because of his mistake in choosing a profession. Not only is his life crippled and ruined, but there is an economic waste which hurts the world in general. When one person is doing a kind of work for which he is not fitted, and could be doing something for which he is naturally endowed, his energies are being wasted, and the world as well as himself is the loser. The ideal toward which we need to work is "Every individual doing the kind of work that will benefit him the most, and will be of greatest service to mankind."

Realizing that these misfits are to be found all around us, the next question is, who is to blame? Upon whose shoulders does the responsibility for this awful condition rest? As the school has the keeping of the children during their formative period of life, at the time each one should make his choice of calling, we must admit that upon the schools largely rests the blame, and to them we must look for help. Children in all the grades should be taught that they are in the world for a purpose, and that they are to be held responsible for the performance of their duty, but to the high school, more than any other department, do we look for proper vocational guidance. It is in the high school that boys and girls should seriously consider what they expect to do in life. But unless we also remodel our standards and methods in the lower grades, we will be unable to get hold of the large majority of pupils in the high school, as they fall by the wayside before reaching that department. So proper vocational guidance in the high school will necessarily include proper methods in the grammar school, so as to make the children feel that it is worth while to continue on into the higher grades. However, as the purpose of this paper is to deal with the high school, we shall discuss some of the means by which we may train high school pupils in such a way as to avoid so many misfits after they pass out into the business and professional world. Most of these may also be applied to the grammar school as well.

One of the first things to do is to make the pupils feel that their success and happiness in life depends upon the choice of their life work. Until they can be made to realize that it is their duty to consider carefully this question, there can be very little vocational guidance. So long as young men and women leave school without having some definite plan and aim in life, to drop into whatever profession presents itself, just so long will our high schools be failing in their God-given mission. But how may this be done?

First of all, we need teachers who are filled with the importance and responsibility of their work in directing the youth of the land; teachers who are teaching because they love to teach, and because they feel that they are called to that kind of work; who feel like the man of old, "Woe am I, if I teach not." We cannot expect our children to be inspired to the best in life by a so-called teacher, who has never considered his own responsibilities in teaching, and who is in the work merely because it seems to be, for the present, the most convenient thing to do. Many lives have been ruined by having come under the guidance of these professional misfits, and the sooner we raise the teaching profession to that plane, on which its importance demands, the better it will be for the children, who are to be the America of tomorrow. I consider this of prime importance in arousing our pupils to the seriousness of choosing their life work.

Sometimes, questions handed out for the pupils to answer arouse interest, and cause them to think upon this subject. Not long ago, I handed a set of questions to each one of my high school pupils, with the request that they study them over carefully, and report upon them in two or three weeks. Some of these questions were, What is your ideal in life? What had you rather be than anything in the world? Are you shaping your work towards the attainment of that ideal? I also asked them to talk with at least six men, whom they thought to be successes in life, as to the age at which they began planning definitely for their life work. These questions caused more serious thought over this subject than most anything I have ever tried, and the answers were intensely interesting. I found that I had in my school prospective teachers, electrical engineers, and others of various callings. I later talked with some of these pupils more specifically about their

future, and I found that they had been greatly aroused by the study they had put upon these questions. I tried to give them the benefit of my experience and observation in helping them to make a decision, impressing upon them the importance of considering their physical and temperamental fitness for their work. I believe this method, properly followed out, will do as much as anything I know of to arouse serious thought in the pupils, and after this seriousness has been aroused, the most important step towards vocational guidance has been taken.

After arousing this interest and seriousness of purpose, the next step is to present to the pupil, in some way, facts about the different vocations, so that he may be able to make a wise choice. So many children deprived of the opportunities of early travel, have very little knowledge of what the various kinds of work are, about which they have studied in a more or less vague way. It is true that many facts may be learned about these vocations, by having them properly taught in the school work, but before making a choice, more technical information will be necessary. This may be done in many ways, a few of which I will mention here.

Composition work, if not made a drudgery, may be utilized in securing information about different lines of work. A pupil assigned the subject of book-keeping, electrical engineering, farming or some other of a long list of occupations, will read about it, and give to his class, either orally or written, the benefit of his investigation. They may ask questions about it, and any question about which they are uncertain may be assigned to some one for further investigation, his finding to be reported later. Successful men should be freely consulted for information, and if possible, they should be invited to make talks to the school concerning their vocation. This will give much first-hand information, and will make the work full of life.

Observation trips, by the whole school, properly planned, may be made to farm and factory, so that the pupils may study these lines of work, and get a better idea of what they really are. They see the difference between the theoretical and the practical, and can form a better opinion of conditions they will have to face, if they decide to take up any of these vocations.

Stereopticon slides, and moving pictures may be used to

great advantage in teaching facts about the different fields of labor. I hope to see the day not far distant when every school both urban and rural will have its own picture machine. The cost is not very great, and the benefit derived will many times repay any outlay of money at first. In fact, anything that aids our boys and girls to be more efficient and successful in life, is well worth having at almost any price. If children could see flashed on the screen the facts about the different vocations, they would be much more able to make a wise choice of their life work, and their lack of travel could be largely overcome by bringing to them the office, factory, farm and shop by means of these pictures. Many pupils form the wrong conception of certain vocations, because of wrong impressions they have of conditions in these vocations. Boys would not hate the farm, if they could see some of our best farms in operation. The idea of many boys about farm life consists of long hours, hard work, hot sun, no entertainment, and few conveniences. This idea could be corrected by showing these boys some of our real farms, either by observation trips, or by moving pictures. They should be impressed with the fact that they can be a farmer on an up-to-date farm just as well as on the more familiar type of farm, if they will meet certain conditions. Here the importance of education should be stressed, and each subject of their high school course should be discussed in its bearing upon the occupation. If pupils can be made to see that what they are studying in school has a direct bearing upon what they expect to do when school days are over, school work will cease to be a drudgery, and become a real pleasure. We must make them feel that they are working to some purpose, and have some definite aim in view. What is true of the farm, is true of other vocations, and it is the duty of the school to see that, in some way, the pupils have all information they need about the different lines of work, that they may form correct ideas of what it really means to be engaged in any of these callings.

Sometimes, this information is secured through vocational bureaus, and where possible this is a good method. In most any town, a good live board of trade,—and every town should have one, if it means the burying of the present one,—will be glad to aid in any way possible to give technical information about any vocation. This information could be given

to the school either by the board of trade in person, or through publications gotten up by themselves or by anyone else.

After the pupils have gotten information about their prospective callings, their future should be discussed freely with them and their parents. Too many times parents decide what they would have their boys and girls do in life before they have passed their infancy, and sometimes it is hard to change their minds. I remember well one mother, who placed her boy in my keeping for the purpose of making a teacher out of him. I worked with him for some time, trying to satisfy her ambitions for her boy, but I soon saw that they were doomed to destruction. The boy had no natural qualifications along the line of teaching, although he was far above the average in intelligence. After careful consideration, I broke the news to the mother, and with a look of disappointment she said, "Well maybe you are right." She followed my advice, and the boy was left to choose his own calling. To-day he is a successful pharmacist, enjoying his profession, and really blessing the world. Had he been forced into the teaching profession against his will, he no doubt would have made a failure, and perhaps would have been discouraged. This would have crippled him for life, and he would have lost valuable time which he used to improve his chosen calling. I cannot over-estimate the importance of getting parents to realize that their children

In making this choice, the pupil should be urged to use altruism rather than egoism. It is the duty of the teacher to place before him some of the greatest benefactors of mankind, in various callings, and help him to base his choice, not alone upon personal profit, but upon profit to mankind. The money consideration should not be ignored altogether, but it should not be allowed to overshadow every other consideration. Here again the inspiration of the real teacher is needed. With a heart full of love for his pupils, and a burning desire to uplift mankind, he should lead them to see the worth while in life, and to realize that, after all, real success is measured by service to humanity. This is the true aim of vocational guidance. Let us hope to see our schools in the near future doing more to guide the youth of the land into that position in life in which they can best serve themselves and the world. When we really do this, we will be performing the greatest mission on earth, and future generations will rise up and call us blessed. should be left to make their own choice.

ENGLISH IN THE HIGH SCHOOL

By L. R. Sims, Principal, Panama City High School.

In considering the subject that has been assigned me, I wish first of all to deal with the teaching of English in the high school. President Garfield on one occasion declared that a teacher and a pupil are the essential requirements for a good school. He even went so far as to say that a student on one end of a log and Mark Hopkins on the other, constituted a university. Perhaps there is a difference of opinion as to what makes a university, but I am quite certain that we can all agree with him in other respects. The teacher and the pupil are the indispensable elements of any school. In fact, Page in his Theory and Practice of Teaching, virtually eliminates the pupil as an important factor, when he says, "As the teacher is, so is the school." Now in my estimation, there are several elements that contribute to the success or failure of a school—but the teacher, it must be admitted, plays the leading part.

If, therefore, what has been said of the teacher in general is true, it particularly applies to the teacher of English. I am not so fanatical and narrow as to say that English is the only important subject in the high school course—for I clearly realize that science, mathematics, history, Latin, and the modern languages are important—very important—and should be taught by highly qualified teachers; but it is of the utmost importance that our English teachers be selected with great care and that the study of English be stressed in the high school. I regret exceedingly to say it, but nevertheless it is true that the teaching done by many of our so-called teachers of English is nothing more than a farce. I find from personal observation that this statement applies not only to Florida, but to other states as well—but it is of Florida that I am speaking at the present. I have been teaching in this state for only two years—a short period of time you may think—but I have nevertheless during these two years learned a great deal about the state's teachers. And you, perhaps, will be surprised when I say that there are many people in this state who are posing as teachers of English, and who do not know—or if they know—they do not teach even the fundamentals of English composition. Some of these would-be English teachers can not even write a respectable letter of application for a position. There are so-

called teachers of English in our state today, who so far as the law is concerned, are entitled to teach high school English,—that is, they have a valid certificate—either state or special—covering the subject of English and in some cases I have known them to boast of degrees from some of our best colleges, and yet a reasonably well trained eighth grade pupil ought to have written a much better letter.

To give a specific example in proof of this assertion—last summer I received a letter from a middle-aged lady teacher, who had had considerable experience as a teacher and who boasted of an M. A. degree from one of our leading colleges for women,—and yet her letter in itself, was sufficient to cause any intelligent principal to turn down her application. Her letter revealed the fact that she knew next to nothing of the essentials of English composition; in fact, she did not use even her capital letters and marks of punctuation correctly. Had I not destroyed these letters, I could at the present moment show you rather a large number of applications from would-be teachers of English that have revealed similar faults of an unpardonable nature. However, I take it for granted that such proof is unnecessary to establish my point. I am quite certain that many other high school principals who are now present, have had experiences and observations of a similar nature.

From what I have said, it follows that the possession of a state certificate does not always insure a good English teacher —and sometimes the certificate plus one or more college degrees, do not make a good teacher. However, it is unfortunately true that many school boards when it is found that a teacher possesses a certificate covering the subject to be taught; that she has had experience, and can show some flattering testimonials from parties who often know little or nothing of what constitutes a good teacher, they take it for granted that she is well qualified—and they employ her. Of course such a teacher is not a success, for we all know that she can not teach anything successfully that she knows little or nothing about.

But this is not the only place where many of our English teachers fall down. The over-grading habit is one great source of trouble. Many of our English teachers will give their pupils grades of 90 to 100 per cent. on themes that at our best colleges and universities would not be worth more than 70 or

75 per cent. As a result of such teaching, many of the common mistakes so often made by high school pupils in English composition, are never corrected. Accordingly the boy goes on through high school receiving high grades and believing that he is a fine English pupil, when in reality he knows but very little about the subject. The boy goes on, we will say, to the university and enters the Freshmen English class. Then what happens? It is very soon apparent that he is not prepared for the work. He starts off with a wrong conception of English. He receives low grades, for his work is of a low order. In most cases the boy fails to pass to pass the Freshmen English course at the university. In exceptional cases, however, one of these over-graded boys will after a few days or weeks at the university, wake up, realize his condition, and by hard work pass his examinations and eventually overcome at least in a measure the handicap that has been imposed upon him as a result of his faulty high school training. In other instances he becomes discouraged and thinks the work is beyond his ability; he no longer makes a determined effort to succeed, but drops out, and as it were, is swept away by the current. Thus he ignobly ends his college career.

But who is responsible for so many of our high school graduates failing in college, anyway? It is, I believe, conceded that something even less than one-third of the students who enter the Freshmen class ever graduate. Perhaps there are different reasons for this, but the fact that the boy or girl has been poorly prepared in high school is most often responsible for his or her failure in college. It has been my experience, that if our high schools do their full part for a pupil before they graduate him, it will be next to impossible for him to fail when he enters college. In other words, I claim that the success or failure of any boy or girl in college, may in most if not all cases, be traced directly back to the training he or she received in high school. How fine it would be indeed, if our high schools would only do their full duty by their pupils. If the high schools would insist on thorough work being done by their pupils, and if the latter were taught how to do hard, sustained mental work how much better it would be both for our pupils and colleges. But alas, the boy is not taught how to do hard work in high school, but in many instances is permitted to travel the primrose path of ease, and along the

lines of least resistance assured by his teacher that at the end of four years in high school and with the acquisition of sixteen units, which have been gained without any special effort on his part, he will be graduated and will be recommended by his principal for admission to the university. Accordingly the boy enters the university with an exaggerated conception of his ability as a student and he fails—fails dismally. He has not been required to do real hard mental work, and very naturally he can not (to use a popular phrase) "stand the strain," when he enters college.

Now, there are some teachers who like to shift the blame for the failure of their pupils on other people or things. For example, many will blame the textbook commission, or perhaps those who planned our high school course of study. It is so natural you know—even for a teacher—to shift the blame for his own incompetency on some one else. It is always nice, I suppose for a teacher to have an alibi or excuse to render for his failure to get good results. Personally, however, I have no fault to find either with our textbook commission or with those who planned the English course for our high schools. I do not consider our textbooks and course of study as being faultless and ideal in every respect—there are not many courses of study that are perfect for that matter. Yet, if we apply Carlyle's standard and judge this course by the wheat and not the chaff that it contains—the fine points are not the bad—then we must admit that our state officials deserve praise for the course of study they have outlined for the English department of our high schools. After all has been said, it is the teacher in the last analysis who is responsible for the success or failure, as the case may be, of our high school English. A really great teacher can teach successfully any textbook on her subject and, if need be she can get along without any textbook whatever. Success, then, depends primarily on the teacher and not on the textbook or course of study.

Thus far I have dwelt mainly with the importance and the need for our English teachers to properly prepare their pupils for college. But we are confronted with another side of this question. For some reason or other, rather a large per cent of our high school graduates never go to college, but their education, so far as schools are concerned, ends with the high school course. These boys and girls go out into the world

and try to make their way in life with the training they already have. Then it follows that our high school teachers must not only prepare boys and girls for college, if they wish to go, but they must prepare that rather large per cent of boys and girls who never go to college—for life and its many battles. In this connection permit me to say that if our high school teachers will only do their full duty by their graduates, it will make very little difference whether a boy goes to Cornell or a cornfield when he graduates—he will not be a failure in life.

As may be inferred from what I have said, I am not so particular as to the grade of certificate that an English teacher holds—for as previously stated, the possession of a certificate does not in itself insure a good teacher. Neither am I greatly concerned as to the number of college diplomas a teacher may have. It is, however, quite true that I like for my English teachers to be college graduates, and if possible to have had special graduate courses in English,—but above all other requirements, I want them to know English and be able to teach it.

My standard for a good English teacher may be a little high, but when you hear my requirements, I feel that you will not consider it too high. In my judgment, an English teacher ought in the first place to know English grammar—otherwise she can not intelligently correct grammatical errors when they occur in a theme or elsewhere. She ought to be a master of English composition and rhetoric, and she should display this knowledge by being able both to speak and write good English. It is very important that in all things the teacher prove a good model for her pupils. She should have a rather intimate and extensive knowledge of English and American literature not only of the textbooks on literature, but also of the books prescribed for class and home reading. It is very important that the teacher should have done rather wide reading especially among the authors to be studied. In this way she can doubly interest her pupils in the reading course, and cause them to fall into the habit of **reading good literature** in preference to reading literature of an inferior nature. To cultivate a taste for good reading among her pupils, should be the chief aim of an English teacher in having her pupils read the books as prescribed in the course of study. But above all other

requirements for the good English teacher, she must be devoted to her subject. She must not be merely interested in a casual way—she must love English—even in the same way she loves her own life. We, as teachers, can interest others only in those things that we ourselves are interested in—hence the need for a teacher's devotion to her subject.

Lastly as regards the scope or aim of an English course, I will, with your permission, point out very briefly a few things that ought to be stressed in every high school English course. The essentials of grammar should not be disregarded, and the texts on composition and literature should be taught thoroughly —omitting nothing. But this is not all,—a mere textbook knowledge of a subject is in itself very unsatisfactory and of little account. It is not what we learn in a textbook that counts, but rather what we can use. The pupils should have constant practice in using the knowledge they gain from the textbooks. They should be given frequent written themes, supplemented with oral compositions—and in this way they can be taught how to express themselves properly and at the same time apply the principles learned in the text. **It is applied knowledge that counts.** Then the supplementary or home reading, as prescribed in our course of study is not to be passed over lightly. The teacher should require her pupils, beginning with the ninth and continuing through all the grades, to read all the books if possible—for in the language of the essayist Bacon: "Reading maketh a full man." In my opinion, a reading course, as suggested in our course of study, has been well taught and has accomplished its purpose splendidly, if the pupils of their own initiative continue the reading of good books even after it is no longer required by the teacher or the course of study. If as a result of this reading course, the pupils can be led on to that point where they will of their own free will, read good literature in preference to that cheap, sentimental, "dime novel" class of literature, then the teacher has rendered those pupils a distinct and lasting service. She has conferred a blessing upon her pupils, the value of which can not be estimated in dollars and cents, but in the language of Shakespeare, "It is twice blessed—it blesseth him that gives and him that receives."

SUPERVISION BY THE HIGH SCHOOL PRINCIPAL

By G. V. Fuguitt, Principal, Tarpon Springs High School

The functions of the high school principal as supervisor are inspection, instruction, guidance, and leadership. There are many other duties he must perform, but in order that his work be most effective these are the chief ones. If the supervisory functions of instruction, guidance, and leadership are not carefully distinguished from that of inspection, there is danger that the work of the supervisor will take the form of that of an inspector in which he will spend his time finding defects in the instruction, and criticising the teaching staff, but offering nothing that will improve those in charge of the work. There is need of inspection, and a very great need of careful supervision in improving the findings of the inspector. Inspection must be regarded as a task to be scientifically and systematically performed, and not in the sense of going about as principals and superintendents have done in the past finding weak places in instruction, but offering nothing as aid except adverse criticism. Such procedure cannot accomplish a great deal, does not belong to the supervisor at all, and will most generally result in the production of fruit of its own kind.

The high school principal as supervisor should take into consideration the welfare of his teachers. While the pupils are the chief end in all supervision, yet every adjustment to the accomplishment of this end should be made with due regard to the welfare of the teaching staff. It is just as important, for the good of the school, that teachers be kept in working condition both physically and mentally as it is that the pupils be given every opportunity for unrestricted development. Neither should be considered at the expense of the other. In fact the supervisor's relation to his teachers is similar to that of the teachers and pupils. He should use every effort to improve them in profession just as the teachers are expected to improve their pupils yielding only to rigid criticism when nothing else will accomplish the desired end. As a rule teachers are developed after they enter the service rather than born into the profession. Hence it is the duty of the supervisor to train and develop his teachers professionally. At times he must instruct, and at other times he needs only to inspire, guide and direct their efforts.

As supervisor the principal needs to concern himself with finding places where leadership is needed, diagnosing defects found, working out methods of instruction, creating as nearly as possible an "education situation" in which the maximum results may be obtained with a minimum effort and time.

A principal should not attempt to determine where leadership is needed by going into a schoolroom and observing the teaching process for a few minutes. He needs something more definite. By observation a weakness may be discovered, but its source is not likely to be accurately determined without which an efficient method of improvement is impossible. If supervision is to be effective, it is essential that results of instruction be expressed in definite concrete terms; for as long as they are expressed in terms which are vague and intangible and which convey different meanings to as many different persons as use them, there can be but little hope for improvement. But when they are expressed in terms which have been standardized and which serve as definite units of measure expressing the same thing to the supervisor, pupils, and teachers then there will be reason to hope for definite improvement.

To express results of instruction in definite units of measure, it is necessary to make use of standard tests. This is the first step toward constructive supervision in any subject. A principal needs to know how his school ranks with other schools, what the defects are, and what factors are largely contributing to these defects. Low standing in reading may be due to several factors some of which are: poor in ability to comprehend, poor vocabulary, slow rate of reading, improper eye-movement, etc. Standard tests will aid in comparing the school system with other schools, will aid in detecting and diagnosing defects and serve as a basis for instituting methods of instruction for correcting defects found. The methods used to improve comprehension may be inadequate to overcome the difficulties due to poor vocabulary. By use of tests the defects may be found and factors contributing to them discovered and tabulated and then separately or collectively these defects may be eliminated or corrected.

Since these standard tests are the best available means of determining factors contributing to defects, supervision in

reading should begin by the use of them. It would be best for comparison and ascertaining the standing of the school to use standard tests, but much good may be accomplished by use of informal tests. These may be used to compare standing of pupils and class in the same school system. They will aid greatly in diagnosing results. We have conducted informal tests on the following plan: Instruct pupils in starting and stopping on time. Select a page of reading or enough to afford material for the fastest reader for more than a minute. Have pupil turn to within one page or leaf of the selection to be read. Then have them get ready to read and at a signal, turn the leaf and begin on the next page at the top. After they have read one minute give the signal to stop. See that all stop on time. Repeat the test two or three times and take the average for the pupil's rate. The class should be instructed to mark the last word read when the signal is given. A few questions may be asked to determine how well they read the selection. In this way a whole grade may be readily diagnosed. The rate is perhaps the easiest phase of reading measured. By use of these informal tests we found that one third grade pupil read three hundred and twenty-five words per minute while the slowest in the same grade read only forty-five words. This difference in ability should not exist in the same room. Having been discovered we probably can set up some method of improving the slow pupil. Similar tests may be devised for determining other factors needing attention.

It is very essential on beginning to improve the reading in a school system to make sure that the teachers understand what they are trying to accomplish in that subject. To assure that all teachers will work along the same lines and direct their efforts toward the same end, there should be collected, and worked out together, in the system, a number of aims covering the reading in all the grades. These aims should be based on modern social needs. Along with each aim should be given suggestive methods for developing it. The following two taken from a collection of eleven I have placed in the hands of my teachers will illustrate the suggestive training for developing the aims. Many other suggestions may be added by the teachers themselves.

Aims. Method or Training to Develop Aims.

1. To enlarge the vocabulary
    1. Have pupils read widely in well graded subject matter . . . good literature for children.
    2. Use selections that repeat frequently the vocabulary of the preceding selections.
    3. Use reading matter rich in practical words and phrases.
    4. Have pupils participate much in oral and written discussions.
    5. Have striking phrases memorized. Have prose and poetry memorized, but not to the point where it will bring a decline in interest.
    6. Create an "educational situation" in which pupils will be forced to use words and phrases memorized.
    7. Have pupils study word meaning as to origin and related present use.

2. To create a wide social interest.
    1. Have pupils read subject matter both local and "foreign." Read books of trade, travel, transportation, habits, and custom of people as far as possible.
    2. Make frequent use of newspapers, magazines, and other periodicals.
    3. Have pupils take an active part in reading material relating to their community and economic activities. Have them compare their community with others in all its economic and social relations.
    4. Set aside a period each week for a few weeks for discussion of social interests. For this purpose there should be in the class room a collection of newspapers, magazines, and other periodicals.
    5. Have class make a collection of literature on social topics.

There may be arranged to good advantage two periods a day in reading. One period should be before noon and the other afternoon. The one in the morning should be devoted to study and thought getting while the one in the afternoon should be given up to easy sight reading. The object of this period is to develop power of rapid reading.

English in the high school should be vitalized by the use of newspapers, magazines, and other periodicals. This is only an extension of the aim to develop a wide social interest in the grades. There are many good magazines specially adapted for use in high schools. The one we have used a great deal is the Literary Digest. It is now being used in our English classes with excellent results. The following is the plan that seems to meet our needs best. The pupils subscribe for the magazine at school rates for the school term. To introduce the paper I have found it advisable to ask for volunteers to subscribe for a period of ten or twelve weeks. By the end of this period several others will subscribe. My experience has been that in a short time every member of the high school will be a subscriber to the paper for school use, and will be disappointed if it is not a part of the English course. The following is our program for its use. Each week the work in English for one day is given up to the topics in the Digest. This is carried through the four years course. The magazine is sent direct to the English teacher who receives it on Wednesday or Thursday. The copies are given out on Thursday to the pupils who select their own topics for discussion and present them to the teacher on Friday for her approval. This gives her an opportunity to direct their reading and also to look over the topics as they will be given in the recitation period. The Tuesday following is given up to the study of English based on the Digest.

The program, whatever it may be, should be a fixed one, so that no confusion will arise from misunderstandings. The discussions hinge around some large topic of interest as nearly as possible, and are given orally to the class rather than to the teacher. Since each pupil has a different topic for discussion he is able to keep up interest in the class by contributing something new.

Written work may be based on the Literary Digest with much added interest. In our school this year interest was added to papers based on the alarm clock. The teacher wanted the class to write an argument. She gave them the problem of building up a good argument for the sale of an alarm clock. The subject matter was taken from advertisements in various papers and magazines relative to the alarm clock in question. The clock sold well or not, pending on the strength

of the argument in its favor. When the discussions were finished, as one member expressed it in regard to another member's argument, there was nothing else to be said in its favor. Other topics may be chosen and members of the class allowed to compete with each other.

A period of a week or more each year may be given up in English to the study of the many magazines and newspapers of the country. For this purpose there should be collected in the high school library a large variety of newspapers and magazines. These may be taken up and carefully studied in all their features. They should be compared with each other and pupils given an opportunity to find out for themselves what our best publications are. This will evidently be of great service to them in later life. The average high school girls and boys do not know how to select current papers and magazines to read and know less about how to read them intelligently after they have selected them.

Mathematics lends itself very readily to constructive supervision by use of tests either standard or informal. For comparing and ranking schools, as in reading, standard tests should be made use of. They should be strongly supplemented by use of informal tests devised by the principal and teachers at first and then by the teachers themselves. I have found the following plan to give good results. It was begun in the ninth grade algebra and later extended in arithmetic to the grades as low as the third.

Every few days any class in mathematics will cover a few principles which need to be mastered if the pupils move on through the subject with ease and efficiency. To determine how well the work has been done, what is lacking, and where drill is needed we give a test to each grade about once a week. This is merely a research test and is followed by an intensive review if there is need of further work on the topics. The review is based on the defects found in the first tests. The results of the first test and the difficulties of each pupil are read to the class, and a day is set for the test to be repeated. The pupils are left to drill themselves on their defects. They are ranked according to standing based on number of problems solved correctly in the test, and since they are given concrete data as to how they stand, where they need drill, and assurance that the test will be repeated

there will be no difficulty experienced in getting them to drill themselves over all their shortcomings. It becomes a competition with themselves—with their former record.

To illustrate the technique of giving the tests we shall take the following case. The class has just finished addition, subtraction, and multiplication of fractions in arithmetic. We fix the time for the test at ten minutes. More problems are selected from these three topics than the fastest pupils can solve in the time allowed. The problems are arranged as follows:

Addition of fractions	Subtraction of	Multiplication of
1	2	3
4	4	5
6	7	7, etc.

This rotation is kept up till problems enough have been given to assure no one finishing all of them. The arrangement gives opportunity for the slowest pupil to attempt two or more problems under each topic. This allows complete diagnosis of difficulties of all pupils in the three topics.

The method of recording data is as follows:

Pupils	Problems attempted	Problems correct	Analysis of difficulties
A	23	12	Adds both numerator and denominator.
B	25	16	Does not know subtraction.

As shown here the names are put on theme paper. In two columns are recorded the data. In one is given the number of problems attempted, in the other column is recorded the number of problems solved correctly. These results are kept in the office for comparison with work in the same grades another year.

The following data show the results of a test given in a grade on Monday, and repeated on Thursday. Analysis of difficulties was made and returned to the grade immediately after the test was given. They were told of all the defects, and that their work was not as high in quality as it should be. They were also told that the test would be repeated on Thursday, and that they should drill themselves over the subject. They were given regular recitations on Tuesday and Wednesday, but left to drill on Thursday on topics on which they had been tested if they wished to do so. Of course they were encour-

aged to drill, but were given no help from the teacher. The data for the grade of twenty-seven pupils are quoted here. Two members showed a loss. These stood highest in first test. One showed no gain.

Of those that showed a gain the results were:

The lowest gain was ten per cent.

The highest gain was three hundred per cent.

The median gain was sixty per cent.

I might add that there were so many problems, and the time so short for the test that there was little possibility of the pupils remembering them well enough for that to make any material difference in the results of the tests.

How may the principal create an "educational situation" in his school system? Only one illustration may suffice.

The program should be so arranged in each grade and in the high school, so far as possible, to allow a study period to follow each recitation. This period should be given over to the preparation of the recitation just assigned for the next day. The work should be done under the supervision of the teacher. The following suggestions may serve as a basis for directing the study group. Of course others may be added.

Work should be assigned and pupils immediately settle down to study.

Tolerate no talking.

Activities of teacher should be kept at minimum.

In upper grades she should require pupils to brief as aid to check.

May group pupils on basis of ability.

Teachers' chief function is to teach pupils how to study.

Should not distract attention by correcting for minor offenses.

Should keep systematic check on deficiencies and attainments of her pupils.

Should require pupils to underscore and memorize pivotal points.

Should have group discussions on common difficulties, and individual instruction on individual difficulties.

Should make final check on work at close of study period.

Drill, organize and fix ideas and facts.

A beginning teacher in work of this nature should re-think her activities at close of the day.

The successes of a study period conducted as herein outlined rest solely with the teacher in charge. Her duties are threefold:

First, To create an "educational situation" in which all outside attractions are reduced to a minimum. Second, To teach pupils how to study. Third, To pilot them intelligently over difficult points.

The most skilled teacher will fall short in directing properly a study group, and can make a success of it only by carefully studying and checking up on herself, her results, attainments and deficiencies.

Whatever the method pursued in correcting deficiencies, or improving ability and maintaining a high standard in the school system, each teacher with the aid of the supervisor should spend much time studying the material used and determining its fitness for the grade in which it is used and its adaptation to the individuals. After the subject matter has been carefully graded it should be given to the class, changed and revised from month to month and year to year so that at the end of three or four years there will be at hand well graded subject matter for each teacher or grade which may be passed on to incoming teachers thus saving much time on part of teachers and supervisor and eliminating one great factor in production of failures. The subject matter studied for each lesson should be labeled fit or unfit for the class and in what way.

We may illustrate with a class in geometry, or arithmetic. The first class a teacher takes over the subject will be exposed to a great many problems and exercises that are far too difficult for most if not all the members. It is her duty to study these exercises as the class goes over them, and label their difficulties. An exercise too difficult for the strongest in an average class is likely to be too difficult for the weakest in any class. It should be so labeled. The next class should not be assigned all these difficult exercises. After some four or five years teaching and properly labeling the exercises much of the useless material may be dropped from the subject matter with excellent results on part of teachers and

pupils. There is enough of the good outlined in our texts, to say nothing of the bad, to keep any class and teacher working during the time allotted to that subject.

REGULATION OF HIGH SCHOOL ATHLETICS

By P. H. Hensley, Principal Ocala High School.

This topic derives its timeliness from the fact that it is always with us. The matter of athletics is of interest to every school of any size. It serves to foster school spirit and to advertise itself in its own community and in others. Sooner or later, however, every high school principal realizes the necessity of curbing the inclination to make too much of athletics. It requires constant watchfulness to keep it in a secondary place.

The regulation of athletics is a matter that cannot be done by a few individual schools. It must be undertaken by a district, or better still, by the entire state. Uniform requirements as to scholarship and deportment must be adopted and enforced by all schools interested. The success of any attempt of this kind will rest in the last analysis with the head of each school. Enforcement of regulations of any kind will depend on honesty in certifying to the eligibility of players and the mutual confidence schools have in each other.

The regulation of this matter will include means to foster fair play and good sportsmanship. The feeling of professionalism should be eliminated decisively. Games should be scheduled and played to promote friendly rivalry and sociability rather than to decide a state championship.

This attitude will be encouraged no doubt by the adoption of a state law requiring physical training in every school. Such special instruction will not displace athletics as a school activity, but will make use of it and will assist in controlling it so that it will promote rather than hinder the main purpose of school work.

REGULATION OF HIGH SCHOOL ATHLETICS

Discussion by F. W. Buchholz (Summary)

Principal Gainesville High School

Athletics in the high school should be so organized that the benefits of play and exercise will be available to every student. Teams representing their schools in the various sports are in many ways desirable and interscholastic contests are to be commended and encouraged; but it is a mistaken policy and one unfair to the great majority of the students to place all the emphasis and center all the interest in such athletic contests. Some equipment should be provided and impetus and encouragement given so that every member of the student body may engage with pleasure in some branch of healthful outdoor exercise.

The regulation of interscholastic athletics is one of the problems of greatest interest at this time. For some time a state athletic association has been in the making—an organization which shall have full authority to regulate and control the athletic relations between the various high schools of the state. One of the chief items in this regulation has to do with rules governing the eligibility of players on interscholastic teams; e. g., the matter of residence and entrance in school, the required standards of scholarship, age limitations, deportment, etc., must be worked out and agreed to by such an organization.

Regulation of athletics within the school should lay especial stress upon the necessity and the desirability of instilling in all participants the high ideals of honor, sportsmanship and clean playing. It will be highly desirable to be very careful in the matter of choosing coaches, and, where possible, it will always be best to have the coaching done by the regular instructors of the school.

It would seemingly not be amiss, once the state association is firmly on its feet, to undertake in some measure the selection over the state of a staff of officials for interscholastic contests; there has in the past been not a small amount of dissatisfaction aroused through poor officiating.

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JANUARY 3 to 13, 1922

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The Short Courses are planned also for the busy man and woman who can spend only a short time at college. Three separate courses have been arranged to meet the demands. These are, Agriculture and Animal Husbandry, Poultry Husbandry, and Citrus Culture and Vegetable Growing.

An examination of the schedule of studies will show the size and nature of the programs offered this year. The student is taught by lectures and by practical exercises. He is required to do things which will assist him in planning his farm work and will make him more expert in his work of general farming, stock raising, dairying, or fruit growing. It is impossible for anyone to take advantage of all the courses during one session. The student is urged to pick and pursue the course that will be of most interest and use to him.

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Station. It is located in a progressive agricultural community. This, in connection with the large variety of products grown upon its own farms, affords the student an excellent opportunity for observation and study.

BUILDINGS AND EQUIPMENT

The College of Agriculture and the Agricultural Experiment Station occupy separate buildings on the University campus. The College of Agriculture building was planned particularly for instructional work. There are large, well-lighted and well-equipt laboratories for the work in soils, fertilizers, agronomy, horticulture, veterinary science, farm machinery, stock judging and dairying. A new clinic for veterinary science work has been added recently.

The dairy barn is large, new, and well provided with silos and modern equipment. It is one of the best in the state. There are over 150 head of cattle in the dairy herd, largely purebred Jerseys. There are also a few Holsteins. The beef herd includes animals of the Shorthorn and Aberdeen-Angus breeds.

The hog herd includes representatives of the Chester White, Duroc-Jersey, Poland-China, Tamworth and Berkshire breeds. A number of feeding experiments with swine are now under way.

The collection of grasses and legumes in the plant introduction garden on the horticultural grounds includes several hundred different species. These afford opportunity for study to those interested.

Special equipment is available for the work in Poultry Husbandry. There will be representatives of all the chief breeds, and a complete equipment of incubators, brooders and other appliances. There are good flocks in the community that will be available for observation and study.

The course in citrus culture will receive the benefit of the laboratories of the Experiment Station. The Hayes, Bean, Hardie, Deming, and other power sprayers will form a part of the equipment of the farm machinery laboratory and will be used for study and practice work.

LIBRARY FACILITIES

The library of the Agricultural Experiment Station contains more than 2,000 volumes along agricultural and allied lines. Complete sets of the publications of the different state agricultural experiment stations and of the United States Department of Agriculture are on file, as well as many of the leading American and foreign periodicals. The library is open to Short Course students.

In addition, the University library, containing more than 20,000 volumes, is available to the students. While there will be little free time on account of the full schedules, some will doubtless find opportunity to look for special information which they may desire.

NUMBER OF COURSES OFFERED

Three courses, each lasting ten days, are offered from January 3 to 13, 1922. These are, Agriculture and Animal Husbandry, Poultry Husbandry, and Citrus Culture and Vegetable Growing. The courses are distinctly different and are planned to meet the needs of different groups of people in the state. On this account, persons are urged to register for one course only. The applications of those desiring to take parts of two courses will be granted, provided it causes no conflicts.

ADMISSION

There are no entrance examinations to the Farmers' Short Courses, but applicants should be at least 18 years of age. The work has been planned primarily for men and women of mature age and with some farm experience.

EXPENSES

Tuition and Fees.—No tuition or other fees are charged those attending the Short Courses.

Rooms and Board.—Owing to the large number of students at the University, the dormitories are full, but rooms can be secured in private homes near the campus or downtown. A list of such available rooms will be furnished the

students upon their arrival; or if preferred, assignments to rooms will be made on request before arrival at Gainesville.

Hotel accommodations can be had, with or without board, at reasonable rates.

Board in the University Dining Hall may be had for 85 cents a day, providing tickets are purchased for the entire time. Single meals will be furnished for 35 cents each. There are several cafes and boarding houses in town, and there are a number of cafeterias, one of which is on the campus, which serve meals at reasonable prices.

Books and Stationery.—Such books, note paper, and pencils as are needed can be secured at the University Book Store.

INSTRUCTIONS

Those coming to the University for the Short Courses will report first to the office of the Dean in the College of Agriculture building. They will be registered here, and meal tickets provided for those who care to eat in the University dining room.

Since it will be helpful to know approximately the expected attendance upon the courses before their beginning, those proposing to attend are requested to notify the Dean, College of Agriculture, Gainesville, as soon as they decide to come.

Registration should be made at once, specifying the course desired.

COURSE IN AGRICULTURE AND ANIMAL HUSBANDRY

JANUARY 3 TO 13, 1922

Florida is a pioneer state, and is just now on the verge of a great development. It is only recently that her general agriculture has been put on a stable basis. The razorback hog and the tick-infested range cow can still be seen, but they are fast being replaced by the better breeds of animals. Fields of cotton are still grown, but they are becoming fewer. In the new agriculture, field crops, livestock and dairying are being made the basis. Fields of corn, velvet beans, cane, sorghum, sweet potatoes, and peanuts are taking the place of cotton. Better fences, better homes, better credit is evident on every hand.

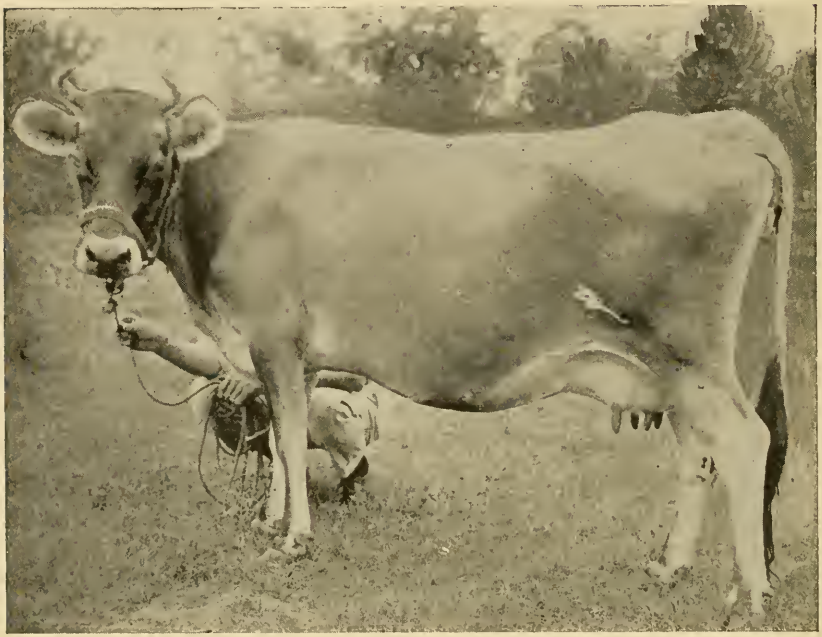
Every farmer must take a part in this great change from the old to the new. There is no longer any place for the razorback hog and the ticky cow; the boll weevil is making cotton growing difficult. To make the change, the farmer must have knowledge. This he may obtain by observing the work of his more progressive neighbor; by reading his agricultural papers and the bulletins of the experiment stations; by cooperating with his county agent and by attending the courses at the agricultural college.

The agricultural college forms a part of the advance guard of the agricultural development in every state. The College of Agriculture of the University of Florida is performing its part in the development of agriculture in Florida. The Short Course in Agriculture and Animal Husbandry is planned to meet the present needs of the Florida farmer. It is arranged to give the greatest amount of useful information in the shortest amount of time.

Soils and Fertilizers.—A knowledge of these subjects is important in the new agriculture. The points of greatest importance under present conditions will be emphasized.

Farm Management.—In the old agriculture, not much management was required. Cotton followed cotton, year after year. The stock ran free on the ranges. The matter

of building up the soil was given scant consideration. With the new agriculture, farm management is all important. The farm must be organized; the fields given proper size; equipment selected; crops chosen; and work planned. These matters will be discussed in detail in this course and examples shown.



One of the best Jerseys of the Florida Experiment Station dairy herd

Field and Forage Crops.—The selection of crops and the methods used in growing them are important considerations. The growing of sorghum, corn, Japanese cane, legumes, sweet potatoes, peanuts, and other crops and their place in Florida agriculture will be studied.

Animal Husbandry.—The work offered in animal husbandry will include lectures and demonstrations dealing with the breeding, feeding, care, management, and judging of the various classes of farm animals. Examples of the best breeds of hogs and cattle will be available for study.

Dairying.—Dairy practices for use on the general farm will be given special consideration. The Babcock test for fat in milk will be taught. Farm separators, the care of milk and cream, and other topics of special interest will be discussed.

Veterinary Science.—The work in this subject will include the care and treatment of sick animals, treatment of common diseases, and minor operations. Special attention will be given to hog cholera, tuberculosis, and abortion disease in cattle. Clinics will be held and practice work given, including demonstrations in administering serum and virus to hogs.

Farm Machinery.—Special study will be made of the implements and machinery that may be used to advantage on Florida farms. A number of gas tractors will be available for study and practice work, as well as complete machinery outfits for use with teams and tractors.

SCHEDULE OF COURSE IN AGRICULTURE AND ANIMAL HUSBANDRY

JANUARY 3 TO 13, 1922

Tuesday, January 3

9—Opening Exercises.
10—Gas Engines, Principles and Types.
11—Poultry Keeping in Florida.
2—The Place of Animals in Agriculture.
3—Horses and Mules for the Farm.
4—Judging Horses and Mules.

Wednesday, January 4

8—Florida Soils, Their Nature and Uses.
9—Fruit on the Farm.
10—Breeds of Beef Cattle.
11—Feeding Tests with Beef Cattle.
2—Importance of Veterinary Science in Florida.
3 to 5—Judging Beef Cattle.

Thursday, January 5

8—Florida Soils, How to Handle Them.
9—Feeding and Management of Work Animals.
10—Principles of Animal Breeding.
11—The Silo in Florida.
2—Common Diseases of Work Animals and Their Treatment.
3 to 5—Examination Farm Animals for Soundness.

Friday, January 6

8—Forage Grasses for Florida.
9—Fertilizers, Their Nature and Uses.
10—Breeds of Dairy Cattle.
11—Common Diseases of Cattle.
2—Building up Herds and Flocks.
3 to 5—Judging Dairy Cattle.

Saturday, January 7

8—Leguminous Forage Crops for Florida.
9—How to Buy Fertilizers.
10—Breeds of Swine and Sheep.
11—Hog Cholera and Diseases Resembling Same.
2—The Future of the Beef Industry.
3 to 5—Vaccination to Prevent Hog Cholera.

Monday, January 9

8—How to Have a Good Garden on Every Farm.
9—Benefits of General Extension to the Florida Farmer.
10—Principles of Animal Feeding.
11—Preventive Measures and Hygiene.
2—Producing Pork and Lard for the Home.
3 to 5—Judging Swine and Sheep.

Tuesday, January 10

8—The Purchase, Use and Care of Farm Machinery.
9—Profits to be Expected from Livestock and Crops.
10—Disinfection and Sanitation.
11—Feeding Tests with Hogs.
2—Dairying in Florida.
3 to 5—Feeding and Handling the Dairy Cow. The Babcock Test.

Wednesday, January 11

8—Ways of Reducing Expenses Between Producer and Consumer.
9—How to Obtain Quick Information for Your Farm Troubles.
10—Tuberculosis and the Tuberculin Test.
11—Feeding Tests with Dairy Cows.
2—Insect Pests of Farm Crops and How to Control Them.
3—Controlling Bacteria in the Dairy.
4—Tick Eradication.

Thursday, January 12

8—Grain Crops for Florida and Their Utility.
9—Most Important Factors in Profitable Farm Organization.
10—Diseases and Treatment of Animals During Pregnancy and Parturition.
11—Contagious Abortion.
2—Sugar Making on the Farm.
3 to 4—Study of Soft Pork Problems.

Friday, January 13

8—Boys' and Girls' Clubs in Florida, and What They Are Doing.
9—Honey Plants and Suggestions for Getting Most from Them.
10—Parasitic Diseases.
11—The Plant Board and How It Helps to Control Diseases.
2—Bee Keeping in Florida.
3 to 5—Visit to Apiary and Plant Board.

COURSE IN POULTRY HUSBANDRY

JANUARY 3 TO 13, 1922

The course in Poultry Husbandry should be helpful at this time. No other state in the Union is like Florida in its climate and its opportunities for profitable poultry keeping. With good markets within its borders, green grass ranges twelve months in the year, no need for closed and costly houses, and feeds to be had for the raising, it is easy to understand the demand for this complete course in poultry production.

The farmers are increasing the size of their flocks and adopting better methods of care and feeding. The backyard campaigns have stimulated interest in town-lot poultry keeping. New settlers are asking for help to meet their needs as they start life anew in this great state.

Florida is as large as all the New England states, with a wider range in its advantages for poultry raising. A study of these advantages will form a part of the course. Not only will the subjects be covered in formal lectures, but also the round-table plan of discussion will be followed.

Florida needs more poultry and eggs to supply present needs. This course is part of the plan to stimulate increased poultry production. There should be good poultry on every farm, in every grove and in the backyards of every town.

SCHEDULE OF COURSE IN POULTRY HUSBANDRY

JANUARY 3 TO 13, 1922

Tuesday, January 3

9—Opening Exercises.
10—Gas Engines, Principles and Types.
11—Poultry Keeping in Florida.
2—The Place of Animals in Agriculture.
3—Selecting Breeding Stock.
4—Eighteen Months' Experience With Trapnests.

Wednesday, January 4

8—Florida Soils, Their Nature and Uses.
9—Fruit on the Farm.
10—Brooding and Brooders.
11—The Growing of Profitable Pullets.
2—Importance of Veterinary Science in Florida.
3—Florida Feeds and Pastures.
4—Internal Structure of the Hen in Relation to Production.

Thursday, January 5

8—Florida Soils, How to Handle Them.
9—Feeding and Management of Work Animals.
10—The Farm Flock.
11—Breeds of Poultry (I).
2—Common Diseases of Work Animals and Their Treatment.
3—Forage Crops for Poultry.
4—Florida Bugs for Florida Hens.

Friday, January 6

8—Forage Grasses for Florida.
9—Fertilizers, Their Nature and Uses.
10—Houses, Equipment and Yards.
11—Beginners' Problems—Round Table.
2—Building up Herds and Flocks.
3—Breeds of Poultry (II).
4—Advertising the Farm and Farm Products.

Saturday, January 7

8—Leguminous Forage Crops for Florida.
9—How to Buy Fertilizers.
10—The Backyard Flock.
11—Poultry Feeds and Feeding.
2—The Future of the Beef Industry.
3 to 5—Visit to Backyard Poultry Flocks.

Monday, January 9

8—How to Have a Good Garden on Every Farm.
9—Benefits of General Extension to Florida Farmers.
10—Sanitation in Yards and Houses.
11—Management of Laying and Breeding Stock.
2—Producing Pork and Lard for the Home.
3—Marketing Poultry Products.
4—The Growing of Better Pullets.

Tuesday, January 10

8—The Purchase, Use and Care of Farm Machinery.
9—Profits to Be Expected from Livestock and Crops.
10—Poultry Parasites.
11—Poultry Ailments.
2—Dairying in Florida.
3—Natural and Artificial Incubation.
4—Home Demonstration Work in Poultry Production.

Wednesday, January 11

8—Ways of Reducing Expenses Between Producer and Consumer.
9—How to Obtain Quick Information for Your Farm Troubles.
10—Selecting the Egg Type of Hen Without Trapnests.
11—Grain Crops for Poultry.
2—Insect Pests of Farm Crops and How to Control Them.
3—Types of Houses for Small Flocks.
4—Egg Circles—Preservation of Eggs.

Thursday, January 12

8—Grain Crops for Florida and Their Utility.
9—Most Important Factors in Profitable Farm Organization.
10—Demonstration in Judging and Candling Eggs.
11—Fitting, Showing and Judging Poultry.
2—Sugar Making on the Farm.
3—Cooking and Canning Poultry.
4—The Farm Woman's Flock.

Friday, January 13

8—Boys' and Girls' Clubs in Florida, and What They Are Doing.
9—Honey Plants and Suggestions for Getting Most from Them.
10—Meeting Florida Poultry Problems.
11—Killing and Dressing.
2—Bee Keeping in Florida.
3—Turkeys, Ducks and Guineas.
4—Cooperative Plan in Placing Standard Bred Poultry.

Chickens like these should have a place in nearly every farm home

COURSE IN CITRUS CULTURE AND VEGETABLE GROWING

JANUARY 3 TO 13, 1922

The prospective citrus grower should know the characteristics of good grove soil, stock and varieties that are adapted to different localities, and the fertilizer requirements of young trees. The older growers may need information on cultivation, fertilization, care of his trees, and aid in identifying troublesome insects and diseases so that he may apply the best methods of control at the proper time and in the most effective way.

The man who grows and markets first class fruit, needs have no fear of over-production. There is no telling how soon poor quality fruit may not pay the cost of producing it. It is important to know what to do in order to produce good fruit and then have the energy and determination to do it. The Short Course will aid the grower in this way.

The growing of vegetables for shipment to northern markets is an important industry in Florida. The time of growing them and the methods that investigation and experience have shown to be the most successful may be studied with profit under teachers who have given thought and attention to them.

The home garden should be an aid in reducing living expenses in every home. The vegetables that may be grown during the different seasons, even when many think there is no use trying to grow them, will be studied. The insects and diseases of vegetable crops and remedies for them are questions in which all are interested, and these will be discussed at the Short Course.

Altho our annual rainfall is great it is not well distributed thruout the year. The conservation of moisture in our light sandy soils and the use of irrigation for certain crops grown during the drier seasons of the year may mean the difference between success and failure. These subjects will come in for a share on the program.

SCHEDULE OF COURSE IN CITRUS CULTURE AND VEGETABLE GROWING

JANUARY 3 TO 13, 1922

Tuesday, January 3

9—Opening Exercises.
10—Gas Engines, Principles and Types.
11—Poultry Keeping in Florida.
2—The Place of Animals in Agriculture.
3 to 5—Characteristics of Different Species of Citrus to Be Found on the Campus.

Wednesday, January 4

8—Florida Soils, Their Nature and Uses.
9—Fruit on the Farm.
10—Soils Adapted to Citrus; Preparation; Cultivation; Cover Crops.
11—Citrus Varieties; Stock for Different Soils; Age and Size of Trees for Planting; Pedigreed Trees.
2—Importance of Veterinary Science in Florida.
3 to 5—Judging Citrus Soils, Score Card Method. Orchard Plans, Laying Out.

Thursday, January 5

8—Florida Soils, How to Handle Them.
9—Feeding and Management of Work Animals.
10—Citrus Whiteflies and Their Control.
11—Scale Insects and Their Control.
2—Common Diseases of Work Animals and Their Treatment.
3 to 5—Identification of Insects to be Found on the Campus. Study of Preserved Specimens.

Friday, January 6

8—Forage Grasses for Florida.
9—Fertilizers, Their Nature and Uses.
10—Rust Mites, Red Spiders and Other Insects.
11—Mealy Bugs, Mites and Minor Insects of Citrus.
2—Building up Herds and Flocks.
3 to 5—Spray Mixtures, and Spraying Machinery.

Saturday, January 7

8—Leguminous Forage Crops for Florida.
9—How to Buy Fertilizers.
10—Diseases of Citrus: Wither Tip, Gummosis, Foot-Rot.
11—Diseases of Citrus: Scaly Bark, Melanose, Stem-end Rot, Scab.
2—The Future of the Beef Industry.
3 to 5—Identification of Diseases to be Found on Campus and Field; Study of Same.

Monday, January 9

8—How to Have a Good Garden on Every Farm.
9—Benefit of General Extension to Florida Farmers.
10—Decay of Citrus in Transit.
11—Decay of Vegetables in Transit.
2—Producing Pork and Lard for the Home.
3 to 5—Laboratory Study of Diseases.

Tuesday, January 10

8—The Purchase, Use and Care of Farm Machinery.
9—Profits to be Expected from Livestock and Crops.
10—The Home Vegetable Garden.
11—The Canker Fight and What Has Been Accomplished.
2—Dairying in Florida.
3 to 5—Demonstration of Implements Used in Seeding and Cultivating.

Wednesday, January 11

8—Ways of Reducing Expenses Between Producer and Consumer.
9—How to Obtain Quick Information for Your Farm Troubles.
10—Irrigation Methods, Manures and Fertilizers.
11—Nursery and Plant Inspection and What It Means to the Grower.
2—Insect Pests of Farm Crops and How to Control Them.
3 to 5—Study of Irrigation Systems in Use on the Farm.

Thursday, January 12

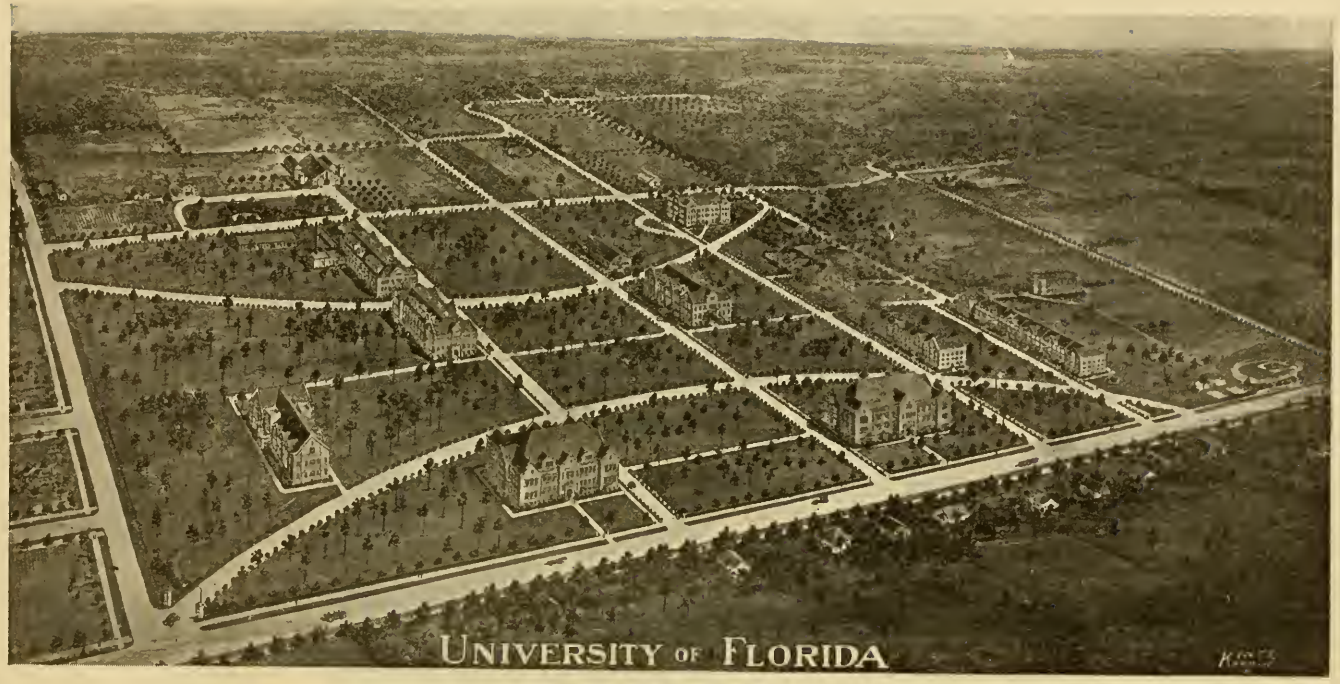
8—Grain Crops for Florida and Their Utility.
9—Most Important Factors in Profitable Farm Organization.
10—Troublesome Insects of Truck Crops and Their Control.
11—Troublesome Diseases of Truck Crops and Their Control.
2—Sugar Making on the Farm.
3 to 5—Identification of Insects and Diseases to be Found on the Farm.

Friday, January 13

8—Boys' and Girls' Clubs in Florida, and What They Are Doing.
9—Honey Plants and Suggestions for Getting Most from Them.
10—The Plant Board and How It Helps Control Diseases.
11—Styles of Packages and Methods of Shipping.
2—Bee Keeping in Florida.
3 to 5—Visit to Apiary and Plant Board.

Spraying watermelons to insure a good crop

If you know of anyone who might be interested, send us his or her name and address. Write to College of Agriculture, University of Florida, Gainesville.



Campus of the University of Florida as a Bird Sees It

#3

University of Florida

GAINESVILLE, ELORIDA

University Summer School

(Co-Educational)

Announcement

June 20-August 12, 1921

SUMMER SCHOOL

SUMMER SCHOOL BOARD

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Biology

MISS ROSE COX
Art

MISS ETHEL CRAWFORD, A.B.
History and Civics

C. L. CROW, PH.D.
Spanish and French

U. P. DAVIS
Music

A. H. FILLERS, B.S.
Science

T. C. FRYE, A.M.
History

JOSEPH R. FULK, PH.D.
Education

MISS CORA GRIFFIN
Primary Education

W. B. HATHAWAY, A.M.
Rhetoric

P. H. HENSLEY, A.M.
English and American Literature

R. H. HIXSON, A.B.
Educational Hygiene

T. R. LEIGH, PH.D.
Chemistry

ALBERT JOHNSTAD
Commercial Education

J. M. LEAKE, PH.D.
College History and Economics

R. G. MANCHESTER, A.B., D.O.
Physical Education

MISS CHRISTIAN McDONALD
Rural Education

E. W. McMULLEN, A.B.
History and Civics

J. H. MARSHBURN, A.B., A.M.
English Language and Literature

H. G. METCALFE
Mathematics

*_____
Educational Psychology

JOSEPH ROEMER, PH.D.
Secondary Education

MISS MAUDE SAUNDERS
Geography

W. E. SAWYERS, A.M.
Mathematics

R. M. SEALEY, A.B.
English Composition and Rhetoric

*To be supplied.

T. M. SIMPSON, PH.D.
College Mathematics

J. E. TURLINGTON, PH.D.
Agriculture

GEO. E. WHITE, A.B.
General Secretary Y. M. C. A.
Director Department Religious and Social Service

MISS FELICIA WILLIAMS, A.M.
English Grammar and Composition

J. H. WOODRUFF
Penmanship

K. H. GRAHAM, *Auditor*
MISS ROSE COX, *Dean of Women*
MISS CORA MILTIMORE, *Librarian*
MRS. S. J. SWANSON, *In Charge of Dining Hall*
MRS. MARGARET PEELER, *Matron*

GENERAL STATEMENT

PURPOSE.—It is the main purpose of the University Summer School to furnish such training as will be most useful to its students in the profession of teaching. A teacher should not only be well versed in subject-matter, but also resourceful in managing a schoolroom or a system of schools. The Summer School attempts to give both kinds of instruction. More specifically, it endeavors to prepare its students for positions as teachers, principals, supervisors, and county or city superintendents of public instruction.

ORGANIZATION.—To this end the work of the Summer School is organized as follows:

1. Normal courses leading to the Normal Diploma.
2. College courses leading to standard college degrees of A.B. and B.S.
3. Graduate courses leading to advanced degrees.
4. Professional courses meeting the requirements for the extension of teachers' certificates with or without further examination.
5. High school courses for mature students and for those who do not have adequate high school facilities at home.
6. Review courses in all subjects required for county, state, and special certificates.

ADMISSION. — Graduates of Standard Junior High Schools, those who have finished the tenth grade of a Senior High School, and teachers who hold a First Grade County Certificate, are admitted to the first year of the Four-Year Normal Curriculum. Graduates of Standard Senior High Schools are admitted to the Freshman Year of the Collegiate Course.

Persons twenty-one or more years of age who cannot satisfy the entrance requirements, but who give evidence of ability to profit by the courses they may take, may, under exceptional circumstances, be admitted as "adult specials."

There are no requirements for admission for those who register merely for review courses.

To facilitate proper classification, all students are urged to bring with them their high school diplomas or a statement from their high school principals of the work they have completed. Blank certificates, conveniently arranged for the desired data, will be sent to all high school principals, and, upon application, to prospective students.

DEGREES.—Students are expected to select their courses in such a way as to lead to a college degree, or the Normal Diploma. The latter, sometimes called the L. I. degree, is the very least that any teacher should possess. There is considerable agitation in the United States at the present time to make the normal diploma, or its equivalent, the minimum professional training for any teacher. This degree is granted to those students who have finished the second (Sophomore) year's work in Teachers College, with the exception that the foreign language work is elective, and that in the sophomore year Education V*a* and VI*b* are required. Courses are also offered leading to the degrees of Bachelor of Arts in Education, Bachelor of Science in Education, Master of Arts in Education, and Master of Science in Education. For the degree of Bachelor of Arts in Education, the major elective work must be chosen in Groups II and III, or Group II or III; for the degree of Bachelor of Science, from Group IV. For the requirements for the more advanced degrees, the student is referred to the General Catalog, May, 1921.

Authority for the above is provided in Section 5 of Summer School Act as follows:

"All work conducted at the said Summer School shall be of such character as to entitle the students doing the same to collegiate, normal or professional credit therefor, and may be applied towards making a degree."

ELECTIVES.—In order that they may be well prepared to teach in high schools, students are expected to take at least three high school subjects for one year or longer in the University. It is assumed that they will elect along

with the subjects they hope to teach, closely related subjects, and will take advantage of the freedom of choice to become especially proficient in these. Students who expect to do their supervised teaching in Biology, should have completed as a minimum Biology I and II. Similarly, those who expect to do their supervised teaching in Chemistry, should have completed Chemistry I and II; in English, English I and one other course in college English; in French, French A and French I; in History, the usual course in high school plus History I; in Latin, Latin A, B and I; in Mathematics, Mathematics A, B and I; in Physics, Physics V or Physics I, II and III; in Spanish, Spanish A and I. (Catalogue, May, 1920.) It is desirable that in each case more than the minimum be completed.

The choice of electives must be approved by the Dean, and only in exceptional cases will he permit a student to do his supervised teaching who has not completed the minimum requirements outlined above.

GROUP SUBJECTS

I.	II.	III.	IV.
Military Science I and II	French	Bible	Agriculture
	Greek	Economics	Astronomy
	Latin	Education	Bacteriology
	Rhetoric and English Language	English Literature	Biology
	Spanish	History	Botany
		Philosophy	Chemistry
		Political Science	Drawing
		Psychology	Descriptive Geometry
		Sociology	Geology
			Mathematics
			Mechanics
			Physics
			Zoology
			Physiology

CURRICULUM

Leading to the Degree of Bachelor of Arts or Bachelor of Science in Education.

Freshman Year

Name of Course	Nature of Work	Hours per Week
Education SI*a*	Introduction to Education	
Education SI*b*	Education in the United States	3
Education SX*b*	Educational Hygiene	
Education SXXI	Primary Methods	
English I	Rhetoric and Composition	3
Foreign Language	French, Latin, or Spanish	3
Agronomy I	General Agriculture	
Biology I*a* and II*b*	Biology and Botany	
Chemistry I	General Chemistry	
Foreign Language	French, Latin, or Spanish	6
History I	Modern European	
Mathematics		
Physics I	General Physics	
Physical Education		1
Total		16

Sophomore Year

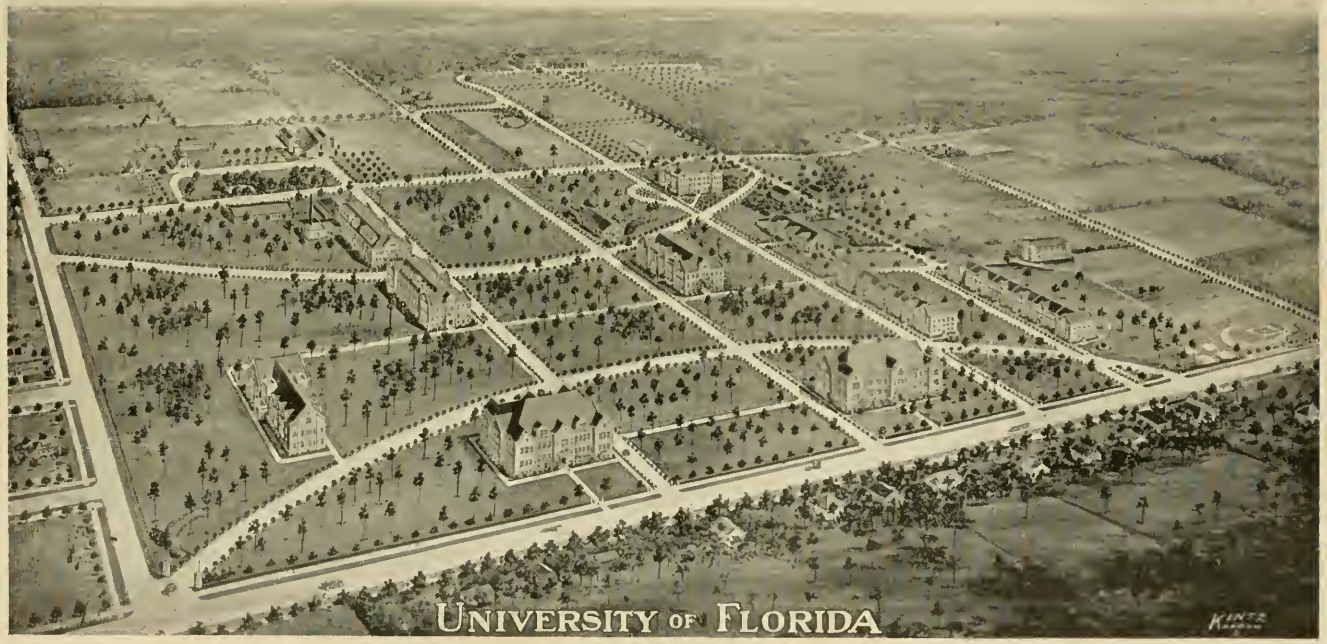
Education SII*a* and Education SII*b*	Reviews and Methods in Grammar School Subjects	3
or		
Education SVI*a* and Education SIV*b*	Child Study / High School Curriculum	3
Philosophy SI	General Psychology	3
French, Greek, Latin or Spanish		3
Group IV		3
Physical Education		1
Total		16

Junior Year

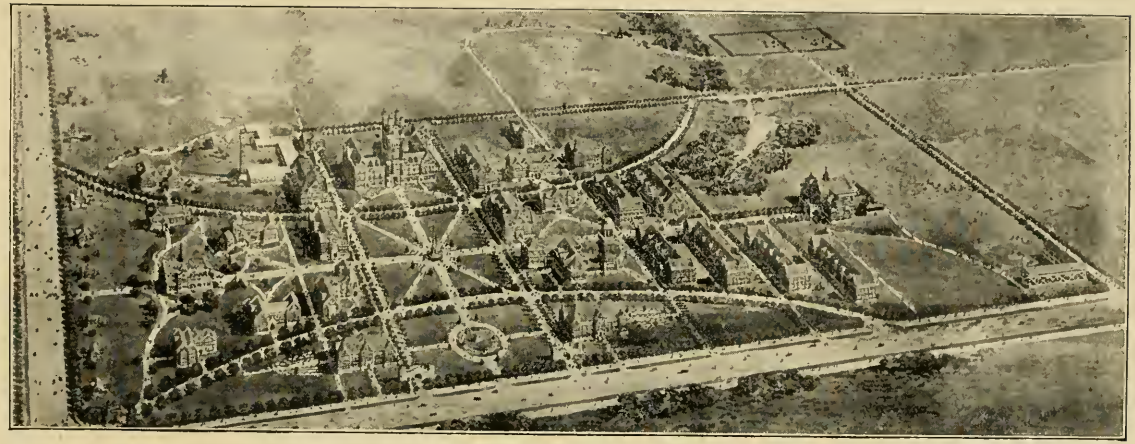
Education III*a*	Public School Administration and Supervision	
Education III*b* or Education XIV*b*	Problems in Administration and Supervision / High School Administration	3
Education VII*a*	Educational Problems	1
Electives		11
Total		15

Senior Year

Education V*a*	Technique of Teaching	
Education V*b*	History and Philosophy of Education	3
Education IV*a*	Adolescense	3
Education VI*b*	Supervised Teaching	
Electives		10
Total		16



Bird's-eye View of the University Campus as it is Today



THE UNIVERSITY CAMPUS AS PLANNED

SUMMER SCHOOL CREDIT.—One hour in the Summer School is equivalent to one fourth year hour as given in the following courses of study. The amount of credit to which the completion of each course will entitle, is given in the description of such courses. No student without special permission of the faculty is permitted to pursue courses that will aggregate more than four and one-half college credits. Exceptionally able students are sometimes permitted to take more than this amount of work, but only with the sanction of the Teachers College Faculty.

The following resolutions, which are primarily intended for students of less than college rank, were adopted by the Teachers College Faculty in January, 1921:

"I. Courses to be given in the Summer School shall be designated as (a) Review, (b) Normal, or (c) College.

(a) Courses intended primarily to give a rapid survey of a subject and thus prepare for examination for a Teacher's Certificate.

(b) Courses arranged primarily for pupils unable to offer fourteen college entrance units.

(c) Courses designed primarily for college students (those able to offer fourteen or more college entrance units).

"II. All courses (whether Review, Normal, or College—may, if the other regulations be observed, be used towards extension of Teachers' Certificates, provided that at least one course of higher scholastic grade than those necessary for the certificate, be taken. A four-hour college professional course shall be deemed to satisfy regulation No. 2 (amount of professional work).

"III. (a) No credit in college entrance units or in college hours shall be given for successful completion of a 'Review' course.

(b) Summer School students offering less than fourteen entrance units shall not, without special permission, be allowed to take more than twenty hours per week. Not more than one entrance unit will be given for work done

by 'Normal' students at one session of the Summer School. For successful completion of one 'Normal' course of study with five recitations per week, one-fourth of one college entrance unit shall be given. One hour of recitation shall be considered equal to two hours of work in laboratory, music, physical education, etc.

The Teachers College will accept entrance unit credits only in case an entire course has been completed. Under no circumstances will it accept less than one-half unit in a subject, and one-half units only in subjects so marked in the current catalog. The College will, however, accept one-quarter of a unit when an additional unit or permissible one-half unit is also offered in the same subject, provided the one-quarter unit does not represent duplication of work.

It is recommended that the schedule of classes be so arranged as to make it possible for a student in 'Normal' courses to earn two one-quarter units in one subject during one session of the Summer School.

(c) A student able to offer fourteen or more college entrance units shall not, without special permission, be allowed to receive more than four and one-half credit hours or one and one-half college entrance units.

Successful completion of a course of study requiring six class hours per week thruout the Summer School session, will entitle the student to one and one-half college hours; completion of a course requiring four or five hours per week, will entitle to one college hour, and of a class meeting two or three times per week, to one-half college hour; but no credit in hours will be given for a class meeting only once a week. To entitle a student to credit, a course in the Summer School must be approved by the head of the Department in the University most nearly concerned."

STATE CERTIFICATES.—Graduates of the Teachers College and of the Normal School are granted State Certificates without further examination—provided that one-fifth of their work has been devoted to professional training and provided that during each of the last two years of their

course they have made a general average of eighty-five on all subjects and have not fallen below sixty in any subject. These State Certificates are converted into Life Certificates in the usual way.

EXTENSION OF TEACHERS' CERTIFICATES

Section 6 of a recent Act of the Legislature provides that:

> "All teachers attending any of the Summer Schools herein created and whose work entitles them to credit therefor, upon making proof of the same to the State Superintendent of Public Instruction, are hereby entitled to one year's extension on any Florida teacher's certificate they may hold and which has not fully expired, and such certificate may be extended one year for each succeeding session attended by the said teacher."

Under this section of the law, no certificate of credit making proof of the work done will be granted by the State Superintendent and the Presidents of the Summer Schools, except to those teachers who attended the full term and whose work shall be satisfactory to the faculty concerned.

REGULATIONS

When credit for extension of certificates is desired the following regulations established by the Summer School Board must be followed:

1. No teacher shall be allowed to take more than twenty hours per week of purely academic subjects.

2. No teacher shall take less than five hours per week of professional work.

(Any four or five hour course in education, pedagogy and psychology that has not been taken previously will satisfy the professional requirement necessary for extension of certificate.)

3. The maximum hours per week, including professional, vocational and academic subjects, shall in no case exceed twenty-seven hours per week. Two laboratory hours to be counted as one hour of academic work.

4. No teacher shall take less than fifteen hours per week without special permission.

5. An extra fee of one dollar will be charged for any change of registration after the first week.

It is hoped that all teachers will recognize the wisdom of the above regulations. Every teacher should seek to raise the grade of his certificate. The Summer School faculty will not recommend students for an extension of certificate for repeating courses which they have taken in previous summer sessions, or those who are not working with the view of raising the grade of certificate already held. To fulfill its highest mission, the Summer School should be used to advance and broaden one's scholarship, not merely to extend one's certificate, or for the purpose of "cramming" for examinations.

ADVANTAGES OF THE UNIVERSITY SUMMER SCHOOL

The advantages that Gainesville presents as the seat of the Summer School are numerous. It is centrally located and easy of access. It has well-paved, lighted and shaded streets, an exceptionally pure water supply, and a good sewerage system. The citizens are energetic, progressive and hospitable. The moral atmosphere is wholesome. The leading religious denominations have attractive places of worship.

The entire equipment of the University is at the hands of the faculty and students. Ample provision is made for intellectual recreation and physical exercise. The Peabody Literary Society meets weekly; lectures or concerts are given frequently; the gymnasium, swimming pool, baseball grounds, and tennis courts are at the disposition of the students and an instructor is at hand to direct athletic activities. The Y. M. C. A. has a fine moving-picture machine, and a large number of educational and travel films have been procured, as well as some of the best feature films obtainable.

PEABODY HALL.—Peabody Hall, the administrative home of the Teachers College, is a magnificent three-story brick

and stone structure. It is modern in every respect as to equipment and arrangements. It contains all the lecture rooms, laboratories and libraries that a modern college of this kind needs.

LIBRARY.—The general library of the University contains about 18,000 volumes of well selected books to which the Summer School students have free access. The Pedagogical library will be of especial interest to them, for it contains many books on educational theory, general and special methods, history of education, psychology and philosophy. In the reading room are more than a hundred of the best general and technical periodicals. Here also are received the leading newspapers of the state.

EDUCATIONAL RESEARCH ROOM.—Room 32, Peabody Hall, is set apart for special and graduate students in Education. This room contains exhibits of many lines of school work; reports and publications of the U. S. Bureau of Education; samples of school texts; Courses of Study; Reports of Superintendents; catalogues of colleges and universities; samples of records and reports, and state school laws. The room is especially rich in material, method and practical operations of mental and educational measurements. Graduate students working on theses will find this room especially helpful and convenient. The equipment is at their service, and individual tables and chairs will be provided.

TEACHERS' EMPLOYMENT BUREAU.—Teachers College and Normal School desires to serve the whole state in every possible way. For this purpose a Teachers' Employment Bureau was instituted and is open thruout the year. From school officials it receives requests for teachers. From teachers it receives requests for information as to vacancies. It files such information and tries, when called upon, to meet the needs of both teachers and school officials. To be of greater service it needs and invites the cooperation of superintendents, principals, and teachers. Officials needing trained men or women, and teachers desiring promotion or change, are asked to call upon the

Bureau for its aid. No charges are made for services. For information, address Dr. Joseph Roemer, University of Florida, Gainesville, Florida.

EXPENSES

Registration fee	$ 2.00
Boarding and lodging in Dormitory per week, *in advance*	5.25
In advance for the term	40.00
Board without lodging, per week	4.25
Board without lodging for the term, in advance	32.00
Board for children under eight, per week	2.00
Board for children between eight and ten, per week	2.50
Board for children above ten, per week	4.25
Infirmary fee (including services of consulting physician and nurse, if needed)	.75

Students taking Manual Training will have to pay for the material they use. This will not amount to more than 75 cents.

There is no charge for tuition. Children under eight years of age will not be admitted to the dormitories, but may dine with their parents in the Commons at $2.00 per week. All accounts are payable in advance.

ROOMS.—Dormitory rooms are supplied with two good iron bedsteads and mattresses, chiffonier or bureau, a table, washstand and chairs. All students are required to provide for themselves a pillow, bed linen, towels, and such other things as they may want for their own special convenience.

Two additional dormitories have been built, which makes it possible to accommodate some of the men on the campus if they so desire.

Good rooms can be obtained adjacent to the campus at a moderate price. A number of rooms in the vicinity can be obtained at a reasonable rate per week. Men desiring to have their rooms reserved in advance, should write at once.

INFIRMARY. — The University will maintain a well equipped infirmary and a professional nurse for those who may be ill during the Summer School.

THE ASSEMBLY.—The assembly will be held on Tuesdays and Fridays at 10 o'clock.

COURSES OF INSTRUCTION

The following abbreviations used in connection with the courses, indicate the buildings in which the courses are held, and the numbers, rooms in which they are held:

A—Agricultural Building; S—Science; P—Peabody; E—Engineering; L—Language; G—Gymnasium.

AGRICULTURE

ELEMENTARY AGRICULTURE.—A general course in agriculture. This will introduce the student to the study of soil, plants, common diseases of plants, insects, farm crops, domestic animals and the like. Methods of teaching agriculture in the rural schools will be stressed. Review and extension credit only. M. W. F. 11:00 A. 13. Mr. Turlington.

ELEMENTARY CROPS.—The origin, classification, and use of crop plants; and the fundamental processes of plant growth and reproduction (3 lectures, 1 laboratory). 1 college credit. T. Th. S. 11:00 Lab. M. 2:00-4:00. A. 13. Mr. Turlington.

FERTILIZERS.—The nature, composition and sources of fertilizers and their reaction on soils and crops. Fertilizer formulas and home-mixing. The making and economical use of farm manures. Fertilizer requirements for various crops, etc. 1½ college credits. Daily 8:00 A. 13. Mr. Turlington.

ANIMAL FEEDING.—Composition of plants and animals; digestion and assimilation; feeding standards and balanced rations. Feeding methods for different classes of animals. 1 college credit. M. W. Th. S. 10:00 A. 13. Mr. Turlington.

COMMERCIAL COURSES

The growing demand in Florida for teachers of commercial subjects as well as for bookkeepers and stenographers prompts us to strengthen these courses with a view to offering such instruction as will best meet these demands. Two eight-weeks' courses have been planned, the completion of which should prepare one for either teaching these subjects in the high schools of the State or doing bookkeeping or clerical work.

Both elementary and advanced courses will be offered in Bookkeeping, Shorthand, Typewriting, Commercial Law and Penmanship.

Tuition fees will be charged for commercial subjects as follows:

Bookkeeping, $7.50 per term.
Shorthand, $7.50 per term.
Typewriting, $10.00 per term, machine furnished.
Commercial Law, $3.00 per term.
Penmanship, $2.00 per term.
All courses, to one person, $25.00 per term.
Schedule of commercial classes:
Bookkeeping, beginning, 8:00 a. m.
Bookkeeping, advanced, 9:00 a. m.
Penmanship, special, 10:00 a. m.
Shorthand, beginning, 11:00 a. m.
Penmanship, general, 2:00 p. m.
Shorthand, advanced, 3:00 p. m.
Typewriting, any convenient period.
All classes in Peabody Hall, Room 18.

DRAWING AND INDUSTRIAL ARTS

PUBLIC SCHOOL ART AND METHODS, GRADES I-IV

COURSE I.—This course includes: Elementary water color, crayon and pencil from plants, flowers, vegetables and fruit; simple design and its application to some problem; elementary color theory; paper cutting and construction; action lines; pose drawing; lettering; arrangements and poster making. Work for first four grades outlined.

Model lessons given. Cost and selection of materials discussed. ½ college credit.

Section 1—M. W. Th. S. 10:00 E. 12. Miss Cox.

Section 2—M. T. W. Th. 2:00 E. 13. Miss Cox.

PUBLIC SCHOOL ARTS AND METHODS, GRADES V-VIII

COURSE II.—This course includes: Water color, pastello, tempera and pencil from plants, flowers and still life objects, studied with reference to light and shade; color theory; simple working drawings; lettering; poster making; suitability of dress for different occasions and types of people; applications of the principles of Art to home decoration; bookmaking; appreciation of direction, balance, rhythm, proportion and values; study of design and its application to some practical problem; paper cutting; work outlined for the school year; cost and selection of materials discussed; perspective. ½ college credit.

Section 1—W. F. 4:00-6:00 E. 12. Miss Cox.

Section 2—M. T. Th. S. 9:00 E. 12. Miss Cox.

NOTE: Other courses in Drawing and Industrial Art may be given if the demand is sufficient.

EDUCATION

Any 4 or 6 hour course will meet professional requirements for the extension of certificates.

PEDAGOGY.—School management, general and special methods of teaching, elementary principles of child nature, school hygiene and sanitation, personality of teacher, relation of school and community, and other practical pedagogical questions. Review. 1 Normal credit.

Section 1—M. T. W. F. 9:00 P. 25. Miss Griffin.

Section 2—T. W. Th. F. 11:00 P. 25. Miss Griffin.

PSYCHOLOGY.—A beginner's course in psychology with applications to teaching. 1 Normal credit. M. W. Th. S. 10:00 P. 25. Mr. Sealey.

EDUCATION II*a*.—Methods of Teaching the Elementary Branches—In this course emphasis will be placed upon the proper presentation of grammar school subjects. 1½ college credits. M. T. W. Th. F. S. 3:05 P. 25. Mr. Sealey.

EDUCATION III*a*.—Administration and Supervision of Village and Consolidated Schools—A course stressing in a practical way problems peculiar to these schools in Florida; their relation to federal, state and local government; the supervising principal, qualifications, relation to superintendent, boards, teachers, pupils, patrons and community; adapting the school to the child's needs, organization, curriculum, attendance, promotions, tests, health work; business practices, school finance, material equipment, school housekeeping, records and reports. 1½ college credits. Daily 9:00 P. 23. Mr. Fulk.

EDUCATION IV*b*.—High School Curriculum—This course is designed to consider the problems of the curriculum of the high school in its organization. Among the topics treated are: Standards for the selection of the curriculum; factors to be considered—age of pupils, social standing, probable school life, probable vocation; its traditional subjects and their possible variations; new subjects and their values; systems of organization, election and prescription; problems of articulation with the elementary school, the college, the vocational school, and the community. 1½ college credits. Daily 11:00 P. 32. Mr. Roemer.

EDUCATION V*a*.—The Technique of Teaching—The laws of learning, lesson-planning, thinking, questioning, the problem-project method, the socialized recitation, democracy in the classroom as a preparation for democracy in life. Textbook: Colvin's "An Introduction to High School Teaching." 1½ college credits. Daily 8:00 P. 17. Mr. Norman.

EDUCATION VI*a*.—Child Study—The nature, growth and development of the child from birth to adolescence with reference to education; the original nature of the child and his education; the meaning of protracted infancy; training in recognition of types and individual differences, of common defects and how to deal with them; the cultivation of intelligent sympathy with children; the effect of Child Study on the practices of elementary and secondary education. 1½ college credits. Daily 8:00 E. 15. *

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*To be supplied.

EDUCATION VI*b*.—Supervised Teaching—This course is planned to give the student practice in conducting recitations under close supervision. A study will be made of the development of courses, and the present status of the subject taught. Lesson plans will be required for all recitations, and the manner of teaching will be subject to criticism. Teaching 4 hours a week; conferences 2 hours a week. 1½ college credits.

I. American History in Secondary Schools. M. T. W. T. F. S. 11:00 P. 23. Mr. Fulk.

II. English in Secondary Schools. M. T. W. Th. F. S. 4:00 P. 28. Mr. Hathaway.

III. Mathematics in the Secondary Schools. M. T. W. Th. F. S. 3:00 P. 20. Mr. Cawthon.

IV. Science in the Secondary Schools. M. T. W. Th. F. S. 3:00 P. 1. Miss Borger.

EDUCATION X*b*.—Educational Hygiene—Conditions and forces that affect the physical and mental vigor of children and teachers, and relate the school to the health of the home and community. Location and sanitation of school buildings; hygienic furniture, etc.; diseases and physical defects; medical inspection; hygiene of instruction; teacher's health; play and recreation; teaching of hygiene. 1½ college credits. Daily 8:00 P. 23. Mr. Fulk.

EDUCATION XI.—Educational Diagnosis—The making of school surveys; the use of scales for measuring educational products; educational stock-taking. How to determine what kind of school a community needs, and what progress pupils are making, etc. (Elective for Graduate Students.) 1½ college credits. Daily 8:00 P. 32. Mr. Roemer.

EDUCATION XIV*a*.—Junior High School—The purpose of this course is to give principals and teachers a knowledge of the junior high school and its organization. Since the movement is in its formative period in Florida, much attention and study will be given to concrete cases and local conditions. Topics: Need of reorganization of the traditional high school; changes needed in the program of

studies, in discipline, methods of teaching, etc.; development of the Junior High School; special function of the Junior High School; organization, curricula and courses of study, methods of teaching, etc., of the Junior High School. Daily 9:00 P. 32. Mr. Roemer.

EDUCATION XXI*a*.—Newer Type of Primary School—This course will discuss some recent departures from the traditional and will consider causes for these changes. The course will include organization of the primary school curriculum, and a discussion of the relationship between the kindergarten and primary school. It is planned to meet the needs of teachers of the first four grades. 1½ college credits. Daily 8:00 E. 10. Miss Burns.

EDUCATION XXI*b*.—Traditional Subjects of the Primary School—Aims and methods; the rapid transformation in methods of teaching the traditional studies will be considered. Type lessons illustrating the drill lesson, the application of the drill lesson and the lesson for appreciation will be given. 1½ college credits. Daily 9:00 E. 10. Miss Burns.

EDUCATION XXI*c*.—Elementary Pedagogy — Organization and management of primary grades; elementary principles of child nature; plays and games; lesson planning; methods of teaching; and other practical problems that should be understood by the primary teacher. 1½ college credits. Daily 3:00 E. 10. Miss Burns.

EDUCATION XXII*a*.—The Teaching of Primary Reading —This course will discuss the basic importance of reading in the primary school; reading as a tool study; the various methods of teaching reading, etc. Because of the close relation of language as a tool study to reading in the primary school that subject will also be considered in this course. The value of phonics, writing, and also spelling will be considered. 1 college credit. M. W. Th. S. 10:00 E. 10. Miss Griffin.

EDUCATION XXII*b*.—The Teaching of Primary Numbers—This course will consider the broad concept number as it relates to child life; means of working out definite

standards of measurement. The four fundamental processes and how to teach them; rapid calculation; etc. This course will lay out the course of study in arithmetic in the first three grades. 1 college credit. M. T. W. Th. Miss Griffin.

EDUCATION XXII*c*.—Story Telling, Plays and Games for Primary Grades—This course will cover such topics as: the place of story in child life; the selection of stories for children; kinds of stories to choose; the telling of stories (actual practice will be given here); the poems for child life; value of play in child life; games suitable for the primary school; the actual playing of games with idea of giving them to children. 1 college credit. M. W. Th. F. 4:00 E. 10. Miss Griffin.

PHILOSOPHY I*a*.—General Psychology—Facts and theories current in general psychological discussion: the sensations, the sense organs, and the functions of the brain; the higher mental functions—attention, perception, memory, feeling, emotion, volition, and like topics. 1½ college credits. Daily 11:00 P. 17. Mr. ————.*

ENGLISH

ENGLISH COMPOSITION.—Three sections:

Section 1. Review and extension credit only. M. T. W. Th. 9:00 P. 28. Mr. Hathaway.

Section 2. Review and extension credit only. M. T. W. Th. 8:00 P. 28. Miss Williams.

Section 3. Review and extension credit only. M. T. W. Th. 8:00 E. 7. Mr. Sealey.

ENGLISH GRAMMAR.—Three sections:

Section 1. Review and extension credit only. M. W. Th. F. 10:00 L. 26. Mr. Marshburn.

Section 2. Review and extension credit only. M. T. W. Th. 11:00 P. 28. Miss Williams.

Section 3. Review and extension credit only. M. T. W. Th. 9:00 P. 17. Mr. Sealey.

ORTHOGRAPHY.—The spelling of common words will be stressed. Correct spelling in all forms of written work

*To be supplied.

will be demanded. How best to teach spelling. Review and extension credit only. F. S. 11:00 P. 28. Miss Williams.

AMERICAN LITERATURE.—Study of American Literature as outlined in Metcalf's "American Literature." 1 Normal credit. M. T. Th. F. 3:00 P. 23. Miss Williams.

ENGLISH LITERATURE.—The history of English Literature as outlined in Metcalf's "English Literature" will be given. 1 Normal credit. M. T. Th. F. 2:00 L. 26. Mr. Hensley.

RHETORIC.—A general course in composition and rhetoric. 1 Normal credit. M. T. Th. F. 4:00 P. 28. Mr. Hathaway.

ENGLISH I*a*.—Advanced College Rhetoric—Designed to train students in methods of clear and forceful expression. Instruction is carried on simultaneously in formal rhetoric, in rhetorical analysis, and in theme writing, the constant correlation of the three as methods of approach to the desired goal being kept in view. In addition a reading course is assigned each student. 1½ college credits. Daily 3:00 L. 26. Mr. Hensley.

ENGLISH I*b*.—Advanced College Rhetoric—This is the work covered during the second semester of Freshman English. It is a continuation of English I*a*. The chapters on Invention in Genung's "Working Principles of Rhetoric" will be studied. A minimum of ten compositions is required. Daily 9:00 L. 26. Mr. Hensley.

EARLY NINETEENTH CENTURY POETRY.—A study of the chief poems of Wordsworth, Coleridge, Keats, Shelley, and Byron, with some attention to their relation to the earlier Romantic movement. Their individual theories will be stressed. Advanced students. 1 credit. M. W. Th. S. 10:00 L. 26. Mr. Marshburn.

MILTON.—A thorough study of the technique, diction, mythological and other allusions of the Minor Poems, with a rapid survey of "Paradise Lost." Advanced students, or those with Instructor's permission. 1½ college credits. Daily 11:00 L. 26. Mr. Marshburn.

FRENCH

FRENCH A*a*.— Elementary Course — Pronunciation, forms, elementary syntax, dictation, written exercises, memorizing of vocabularies. 1½ college credits. Daily 9:00 L. 9. Mr. Crow.

FRENCH A*b*.—Elementary French, second semester's course; continuation of French A*a;* grammar, prose composition, reader, oral practice. Fraser & Squair's Shorter French Course; La Belle France. Prerequisite: French A*a* or equivalent. 1½ college credits. Daily 11:00 L. 12. Mr. Anderson.

FRENCH SI*a*.—Second year French, first part. Grammar, prose composition, reader. Prerequisite: French A or equivalent. 1 college credit. M. T. Th. F. L. 12. Mr. Anderson.

GEOGRAPHY

POLITICAL GEOGRAPHY.—Special attention will be given to Florida and its relation to other states. A thorough review of the geography of the United States and the world. Instruction will be given in the use of text-books, maps, globes, industrial products, etc. Review and extension credit only; three sections:

Section 1. M. W. Th. 10:00 S. 1. Miss Saunders.
Section 2. M. W. F. 2:00 S. 1. Miss Saunders.
Section 3. M. W. F. 3:00 S. 1. Miss Saunders.

PHYSICAL GEOGRAPHY.—The main features of the ordinary text-book in physical geography will be studied. Along with this stress will be placed upon the effects the physical features have on man—his commercial and social life. This will be correlated with agriculture. I Normal credit. Two sections:

Section 1. M. T. Th. F. 4:00 S. 1. Miss Saunders.
Section 2. M. W. Th. S. 10:00 E. 16. Miss Borger.

HEALTH WEEK

Week of July 11th is designated as "Health Week." A representative of the Florida Public Health Association will be in charge of the chapel exercises. A series of

entertainments, consisting of moving pictures, stereopticon slides and addresses on "How to Teach Hygiene and Sanitation in the Public Schools" will be given each evening during the week in the gymnasium. No credit given.

LATIN

FIRST YEAR LATIN.—Section 1. Beginners. 1 Normal credit. M. W. Th. S. 10:00 P. 28. Mr. Hathaway.

Section 2. Review. Review and extension credit only. M. T. W. Th. 4:00 P. 17. Mr. Buchholz.

CAESAR.—In this course three books will be thoroughly studied. Composition. 1 Normal credit. M. T. W. Th. 3:00 P. 17. Mr. Buchholz.

CICERO.—Three or four orations of Cicero with prose composition. 1 Normal credit. M. T. W. Th. 9:00 P. 20. Mr. Buchholz.

VIRGIL.—Three books of Virgil are read and, in addition, prose composition will be given. 1 Normal credit. T. W. Th. F. 8:00 P. 21. Mr. Buchholz.

LATIN SI*a*.—Selections from Ovid, with a review of the forms and simpler constructions with practice (largely oral) in easy prose composition. If the class prefers, Cicero's De Senectute and De Amicitia will be read instead of the Ovid. Prerequisite: Three years of High School Latin. 1 college credit. M. W. Th. S. 9:00 L. 12. Mr. Anderson.

MANUAL TRAINING

This work is planned to include shop work and mechanical drawing courses suitable to the first year of High School.

SHOP WORK.—The shop course will consist of bench work, machine work and turning. At the bench various joints will be laid out and constructed and small pieces of furniture made. This will give practice in using hand tools, glueing, staining, varnishing, etc. As much practice as possible will be given on the different machines, and all work will be done from drawings. Shops will be open to accommodate classes.

Peabody Hall, Where Summer School is Conducted

BEGINNER'S PLANE GEOMETRY I.—Books I and II. 1½ Normal credits. M. T. W. Th. F. S. 8:00 P. 20. Mr. Cawthon.

PLANE GEOMETRY II.—Review Course—Review and extension credit only. M. T. W. Th. 2:00 E. 15. Mr. Sawyer.

SOLID GEOMETRY.—1½ Normal credits. M. T. W. Th. F. S. 9:00 E. 16. Mr. Sawyer.

PLANE TRIGONOMETRY.—1 college credit. M. T. Th. F. 3:00 L. 23. Mr. Simpson.

COLLEGE ALGEBRA.—Selected topics of algebra that lie beyond the high school course. 1½ college credits. Daily 9:00 L. 23. Mr. Simpson.

PLANE ANALYTICAL GEOMETRY.—First semester's work. 1½ college credits. Daily 11:00 L. 23. Mr. Simpson.

ELEMENTARY CALCULUS.—1½ college credits. Daily (hours to be arranged) L. 23. Mr. Simpson.

NOTE: Those interested in other advanced courses should correspond with the instructor.

MUSIC

MUSIC METHODS I.—It is the object of this course to point out the true place and purpose of public school music, and to consider the various methods of teaching music to children in the primary grades. ½ college credit.

Section 1. M. T. W. Th. 2:00 G. Mr. Davis.

Section 2. M. W. Th. 10:00 G. Mr. Davis.

MUSIC METHODS II.—A continuation of course I. Material is examined for the Grammar Grades and High School. ½ college credit.

Section 1. M. T. Th. F. 8:00 G. Mr. Davis.

Section 2. T. W. Th. F. 4:00 G. Mr. Davis.

PUBLIC SPEAKING

On account of limited funds, a nominal fee will be charged for the following courses:

EXPRESSION AND PUBLIC SPEAKING.—In the courses offered particular attention will be given to establishing a correct method of breathing, to correcting faulty articulation, and to teaching the principles of interpretation by

voice, gesture, and facial expression. In these studies special attention will be given to preparing teachers for carrying on this work in the public schools. Those interested see Professor J. M. Chapman. Law Building. Hours to be arranged.

PHYSICAL EDUCATION

NOTE: All ladies will be required to have middies, bloomers and tennis shoes. It is recommended that the middies be white and the bloomers black sateen. Mr. Manchester will have these suits on hand if students will place their orders with him early, accompanied by checks or money orders.

All men will be required to have baseball trousers or white duck pants, gym shirt and tennis shoes. White gym shirts and tennis shoes are preferable.

PHYSICAL EDUCATION I.—Elementary Gymnastics—½ college credit. G. Section 1. Men—M. W. Th. S. 10:00. Section 2. Women—M. T. W. F. 4:00 Gymnasium. Mr. Manchester.

PHYSICAL EDUCATION II.—Physiology—This will be an elementary subject, giving action of the different organs and exercise to stimulate them. The general laws governing the body and health. ½ college credit. W. 2:00, Th. 4:00. Gymnasium. Mr. Manchester.

PHYSICAL EDUCATION III.—Advanced Gymnastics—This is for those who have had work either in Course I or have made progress in the work elsewhere. ½ college credit. Section 1. Men—M. T. W. Th. 3:00. Section 2. Women—M. T. Th. F. 5:00. Gymnasium. Mr. Manchester.

PHYSICAL EDUCATION IV.—Anatomy—An elementary course in bony structure, muscles and important nerves in their relation to physical education. ½ college credit. M. W. 8:00. Gymnasium. Mr. Manchester.

PHYSICAL EDUCATION V.—Major Sports—Organized sports, football, basketball, track and baseball. Principles of coaching, training, diet and handling athletes. ½ college credit. M. T. Th. F. 2:00. Gymnasium. Mr. Manchester.

PHYSICAL EDUCATION VI.—Minor Sports—All games and competition between individuals and teams not representing major sports. How to organize and carry minor

sports, rules and organization governing them. ½ college credit. M. T. Th. F. 2:00. Gymnasium. Mr. White.

PHYSICAL EDUCATION VII.—General playground and social hour, 7 P. M.—This will be given on the campus.

RELIGIOUS AND SOCIAL SERVICE

GEORGE E. WHITE, *General Secretary Y. M. C. A.*
Director Department of Religious and Social Service

Under this department the general program of the Young Men's Christian Association, as rendered in the last two years, will be continued. This is not a new department, but it places the department under a more definite plan in order that it may serve the student life in a better way.

All the other social organizations on the campus, and the County Clubs, will be organized through this department. Every phase of social life will be encouraged. The following is the general program in the

RELIGIOUS DEPARTMENT

Sunday, 7 P. M.—Vesper Services.
Tuesday, 10 A. M.—Chapel.
Wednesday, 7 P. M.—Devotional Services.
Friday, 10 A. M.—Chapel.

SOCIAL DEPARTMENT

Cooperating with the Department of Physical Education.

Monday, 4:00-6:00 P. M.—Plays and games on campus.

Tuesday, 8 P. M.—Moving pictures in Gymnasium.

Wednesday, 4:00-6:00 P. M.—Plays and games on campus.

Thursday, 8 P. M.—Peabody Club.

Friday, 8:00-11:00 P. M.—Socials in Social Hall and Gymnasium.

SCIENCE

HYGIENE.—Special efforts to impress the teacher with the importance of hygiene and sanitation. How to keep well and physically efficient is the special aim of this course. ½ Normal and extension credit. W. F. 9:00 A. 1. Miss Borger.

BOTANY. — In classroom and laboratory structure, morphology, reproduction and classification will be studied. After students have been prepared for them, field trips will be taken, when representative types of important families will be collected and identified. 1½ normal credits. M. T. W. Th. F. S. 3:00 P. 1. Miss Borger.

PHYSICS.—A general course, such as is usually given in standard secondary schools—lectures, recitations, demonstrations, and a limited amount of individual laboratory work. 1½ Normal credits. M. T. Th. S. 10:00 P. 1. Laboratory W. F. 4:00-6:00 P. 1. Mr. Fillers.

GENERAL SCIENCE.—A course of methods in General Science designed especially to meet the needs of high school teachers. 1 Normal credit. M. T. W. F. 8:00 P. 1. Miss Saunders.

ZOOLOGY.— In connection with the text-book study, typical specimens illustrating the different groups will be dissected and studied in the laboratory, to obtain as comprehensive an idea of their structure and physiology as possible. 1 Normal credit. M. T. Th. F. 2:00 P. 1. Miss Borger.

BIOLOGY I*a*.—General Biology—The fundamental properties of living organisms, their structure, activities, development and life histories. Prerequisite to all other courses in biology. (2 class and 2 laboratory periods per week.) 1 college credit. M. W. 3:00, Lab. M. W. 4:00-6:00. S. Botany room. Mr. Cody.

BIOLOGY XI*a*.—General Bacteriology—The morphology, physiology and cultivation of bacteria and related microorganisms. (2 class and 2 laboratory periods per week.) 1 college credit. T. Th. 3:00, Lab. T. Th. 4:00-6:00. S. Botany room. Mr. Cody.

BIOLOGY XII*b*.—Agricultural Bacteriology—Soil bacteria and their influence on soil fertility, and bacteria in relation to milk and its products. (2 class periods and 2 laboratory periods per week.) 1 college credit. T. Th. 2:00, Lab. T. 4:00-6:00, F. 2:00-4:00 S. Botany room. Mr. Cody.

BOTANY I.—Economic Botany—The relationship, habits, characteristics and environmental relations of the import-

ant crop plants, with laboratory study of important types. (2 class periods and 2 laboratory periods per week.) 1 college credit. M. W. 2:00, Lab. W. F. 4:00-6:00 S. Botany room. Mr. Cody.

CHEMISTRY

GENERAL CHEMISTRY.—A course designed for those who wish to prepare for science teaching in the high school. This course can be taken by those who have never taken chemistry before or by those who have had a course before and wish to review it. There will be two courses in General Chemistry, one embracing non-metals and one embracing metals. The former is a prerequisite to the latter. 2½ college credits.

Section 1. Equivalent to first semester of Chemistry I. Daily 9:00, Lab. M. T. W. Th. 2:00-4:00 S. 3. Mr. Leigh.

Section 2. Equivalent to second semester of Chemistry I. Daily 11:00, Lab. M. T. W. Th. 2:00-4:00. S. 8. Mr. Fillers.

QUALITATIVE ANALYSIS.—A laboratory course in this subject offered to those who have had general chemistry. 1½ college credits. T. Th. 2:00, Lab., M. T. W. Th. 4:00-6:00. S. 3. Mr. Leigh.

GRAVIMETRIC ANALYSIS.—A laboratory course offered to those who have had Qualitative Analysis. 1½ college credits. Laboratory afternoons 2:00-5:00, days to be arranged. S. 3. 12 hours per week. Mr. Leigh.

VOLUMETRIC ANALYSIS.—A laboratory course offered to those who have had Gravimetric Analysis. 1½ college credits. Laboratory afternoons 2:00-5:00, days to be arranged. S. 3. 12 hours per week. Mr. Leigh.

ORGANIC CHEMISTRY.—This course is designed to present the fundamentals of chemistry of the compounds of carbon. The work in the classroom is presented by means of lectures, quizzes, and oral and written recitations. 1½ college credits. Daily 10:00, Laboratory 2:00-5:00 S. 3., days to be arranged. Mr. Leigh.

CHEMICAL TECHNOLOGY.—A laboratory course offered to those advanced students of chemistry who contemplate

commercial laboratory work, or who wish to fit themselves for the technical examination of materials in a chosen field. See instructor. A half course may be taken in Qualitative Analysis if desired. 1½ college credits. S. 3. Mr. Leigh.

SOCIAL SCIENCES

CIVICS.—Special attention will be given to local, town, city, and county governments. Information that every intelligent citizen should have is stressed. An attempt will be made to teach the subject as it should be taught. Four sections. Review and extension credit only.

Section 1. M. W. Th. 10:00 P. 23. Mr. Frye.
Section 2. M. W. F. 11:00 E. 10. Miss Crawford.
Section 3. T. Th. F. 2:00 P. 23. Miss Crawford.
Section 4. W. Th. F. 3:00 P. 17. Mr. McMullen.

FLORIDA HISTORY.—State-adopted text-book will be covered. Review and extension credit only. M. W. 10:00 P. 17. Miss Crawford.

UNITED STATES HISTORY.—Four sections, each covering thorough review of State-adopted textbook. Review and extension credit only.

Section 1. M. T. Th. F. 8:00 L. 25. Mr. Frye.
Section 2. M. T. Th. F. 9:00 L. 25. Mr. McMullen.
Section 3. M. T. Th. F. 2:00 L. 25. Mr. McMullen.
Section 4. M. T. Th. F. 3:00 L. 25. Miss Crawford.

HISTORY.—Ancient—1½ Normal credits. M. T. W. Th. F. S. 8:00. P. 25. Mr. McMullen.

HISTORY.—Medieval and Modern—1½ Normal and extension credits. M. T. W. Th. F. S. 9:00 P. 25. Miss Crawford.

HISTORY.—English—1 Normal and extension credit. M. T. W. Th. 2:00 L. 10. Mr. Frye.

HISTORY.—American—1 Normal and extension credit. M. T. W. Th. 11:00. P. 23. Mr. Fulk and Mr. Frye.

MODERN HISTORY.—History of the World War—This course will begin with a careful analysis of the historical background of the war and a systematic study of its remote and immediate causes. While not essentially a course on military history, the campaigns and battles will be studied

from the point of view of the social, political, and economic problems presented to the various states by the struggle. Some time will be given to the aims and objects of the various belligerents and to the complex and intricate problems of the Congress of Versailles and the attempts there made at reaching a satisfactory solution of them. 1½ college credits. Daily 8:00 L. 10. Mr. Leake.

AMERICAN HISTORY.—The Civil War and Reconstruction—This course will include a thorough study of the causes and background of the war between the states; the various military, social, economic, and political phases of the struggle, and the problems connected with the reconstruction period and the restoration of home rule in the southern states. 1½ college credits. Daily 9:00 L. 10. Mr. Leake.

AMERICAN GOVERNMENT AND POLITICS.—A thorough analysis of the institutions and political practices of the United States, together with a brief examination of the fundamental features of our state and local governments, will constitute the work of this course. Emphasis will be laid on constitutional questions and on present-day political problems. This course will be of help to teachers of Civics. 1½ college credits. Daily 10:00 L. 10. Mr. Leake.

SOCIOLOGY AND ECONOMICS

The summer work in this department has been planned with the two-fold purpose of meeting the needs of college students and giving special assistance to those teaching or planning to teach one or more of the social sciences—History (with current events), Sociology, Economics, Community Civics.

SOCIOLOGY I.—An elementary course touching a variety of social problems with some reference to the principles of social evolution, social organization and social progress. 1½ college credits. Daily 9:00 L. 11. Mr. Bristol.

ELEMENTARY ECONOMICS.—A brief discussion of the fundamental principles underlying the production, exchanges, distribution and utilization of economic goods

with some application to current economic problems. 1½ college credits. Daily 11:00 L. 11. Mr. Bristol.

SPANISH

SPANISH A*a*.— Elementary Course — Pronunciation, forms, elementary syntax, dictation, written exercises, memorizing of vocabularies. 1½ college credits. Daily 11:00 L. 9. Mr. Crow.

SPANISH A*b*.— Elementary Course — Continuation of Spanish A*a*, but mainly a reading course. 1 college credit. M. T. W. Th. 3:00 L. 9. Mr. Crow.

SPANISH I*a*.—Intermediate Course—Work of Elementary Course continued, advanced grammar, including syntax, prose composition. 1½ college credits. Daily 8:00 L. 9. Mr. Crow.

Only two of the classes outlined will be given, the choice depending upon the demand.

ROOMS

All who expect to occupy dormitory rooms, which in every case are comfortable and commodious, should make reservations as soon as possible.

For room reservations and general information as to the Summer School, address

J. W. NORMAN,
Dean of Teachers College,
Gainesville, Fla.

University of Florida

Gainesville, Florida

Normal School and Teachers College

Review Courses

A One-Year Course

A Two-Year Elementary Professional Course

Regular Four-Year Normal Course

Course Leading to an A.B. Degree in Education

Course Leading to a B.S. Degree in Education

Courses Leading to Graduate Degrees

The Summer School

For information write,

A. A. MURPHREE, *President*

or

J. W. Norman, *Dean*

University of Florida
Teachers College

Issued by the
Department of Secondary Education

A Study of Florida High Schools

By

Joseph Roemer, Ph.D.,
Professor of Secondary Education and
High School Visitor

ORGANIZATION

There is not a more pleasing chapter of the history of Florida education than the development of the public high school. Starting as it did in the closing years of the last century, it grew to such proportions as to justify state supervision and inspection as early as 1907, and now has reached such a magnitude as to demand more than one inspector. The story of its growth in number of teachers employed, amount and value of library and laboratory equipment installed, new buildings added, etc., reads like a fairy tale to one who traces it back through the Biennial Reports of the State Department of Education. When the future is considered in the light of past development it brings a flush of heart to those who have absolute faith in the great democratic movement of the modern high school.

In order to get a little better idea of its present condition and possible future lines of development, the writer thought it would be of interest to take a cross section, as it were, of its present status. This is not, in any way, intended to be an exhaustive study, but merely an attempt to call attention to a few of the outstanding phases of high school development in Florida.

The bulletin is divided into three chapters. The first chapter deals with the general organization of the high school including such topics as number of high schools, kind of high schools, enrollment, etc.; the second chapter has to do with the training, tenure, supply, etc., of teachers; and the third chapter deals with the course of study.

In presenting the data contained herein, it was deemed advisable to group the high schools for discussion under the following headings: FOUR YEAR HIGH SCHOOLS; THREE YEAR HIGH SCHOOLS; TWO YEAR HIGH SCHOOLS; ONE YEAR HIGH SCHOOLS.

In order to make the study as helpful as possible and to have the conclusions drawn from as full data as possible, a very thorough search and great effort was made to secure data for every high school in the state regardless of size. Through the kindness of Professor W. S. Cawthon, State High School Inspector, the name and location of all high schools

in the state was secured, then data obtained concerning them by means of a blank which was filled by each principal.

At this point the writer wishes to express his deepest appreciation to the high school principals for their extreme courtesy in filling so promptly and carefully the blank sent them. Their willingness to cooperate made the study possible. Special mention is also due to Messrs. S. W. Cason, G. C. Hamilton, H. C. Johnson, and H. L. Tolbert, senior students in Teachers College of the University of Florida, for their assistance in preparing the material for publication.

Tables I to IV give the enrollment for each particular high school of the state for February 1921. Table V is a summary of tables I to IV. The tables follow without further comment.

TABLE I

Enrollment in Florida High Schools

(4 Year High Schools)

Location of School	GRADES														
	9th			10th			11th			12th			Grand Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Alachua [1]	16	28	44	16	23	39	4	3	7	3	6	9	39	60	99
Apalachicola [2 5]	13	15	28	1	7	8	0	7	7	0	3	3	14	32	46
Apopka	7	7	14	3	4	7	3	3	6	0	2	2	13	16	29
Arcadia [1 6]	23	31	54	15	28	43	10	29	39	7	11	18	55	99	154
Avon Park	7	16	23	5	5	10	2	3	5	1	5	6	15	29	44
Barberville [3]	7	7	14	6	6	12	1	5	6	2	3	5	16	21	37
Bartow [1 6]	25	24	49	22	34	56	20	28	48	6	20	26	73	106	179
Bonifay	12	15	27	3	13	16	2	4	6	2	3	5	19	35	54
Bowling Green	7	12	19	2	8	10	1	4	5	3	4	7	13	28	41
Bradentown [1 6]	35	57	92	24	34	58	18	19	37	11	11	22	88	121	209
Brooksville	14	9	23	16	7	23	6	6	12	8	7	15	44	29	73
Bushnell	2	5	7	5	9	14	2	2	4	0	1	1	9	17	26
Chipley [1]	20	29	49	18	20	38	5	5	10	4	3	7	47	57	104
Clearwater [1 6]	24	39	63	18	21	39	16	20	36	13	22	35	71	102	173
Cocoa [1]	9	10	19	6	13	19	5	11	16	2	3	5	22	37	59
Crescent City	6	8	14	1	5	6	3	3	6	3	0	3	13	16	29
Dade City [1]	16	32	48	7	14	21	4	4	8	3	11	14	30	61	91
Daytona [1 6]	28	38	66	13	36	49	14	15	29	6	9	15	61	98	159
DeFuniak Spgs.	25	29	54	16	21	37	11	14	25	8	11	19	60	75	135
DeLand [1 6]	22	28	50	23	24	47	5	29	34	5	14	19	55	95	150
Delray	5	10	15	4	5	9	6	6	12	0	4	4	15	25	40
Dunnellon [1]	8	13	21	3	5	8	6	5	11	0	2	2	17	25	42
Eau Gallie	7	0	7	1	2	3	1	5	6	2	0	2	11	7	18
Eustis [1]	15	7	22	7	13	20	8	8	16	3	2	5	33	30	63
Fellsmere	2	5	7	1	1	2	1	1	2	1	1	2	5	8	13
Fernandina	2	12	14	2	6	8	1	2	3	0	3	3	5	23	28
Ft. Lauderdale [6]	25	28	53	12	18	30	12	10	22	11	14	25	60	70	130
Ft. Meade [6]	19	24	43	13	20	33	7	15	22	6	13	19	45	72	117
Ft. Myers [1 6]	30	31	61	18	23	41	8	11	19	8	8	16	64	73	137
Ft. Pierce [6]	12	31	43	15	14	29	6	11	17	2	12	14	35	68	103
Gainesville [1 6]	50	39	89	21	43	64	24	34	58	8	17	25	103	133	236

TABLE I—Continued

Enrollment in Florida High Schools
(4 Year High Schools)

Location of School	GRADES														
	9th			10th			11th			12th			Grand Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Gonzalez	9	6	15	8	4	12	3	4	7	1	4	5	21	18	39
Graceville	11	6	17	9	11	20	3	2	5	3	3	6	26	22	48
Gr. Cove Spgs.	3	16	19	3	1	4	1	2	3	0	1	1	7	20	27
High Springs [1]	9	7	16	3	6	9	1	7	8	2	1	3	15	21	36
Homestead [1]	8	10	18	8	9	17	3	7	10	4	4	8	23	30	53
Inverness [3]	9	5	14	3	11	14	2	6	8	5	4	9	19	26	45
Jacksonville [6]	242	255	497	118	167	285	66	91	157	50	78	128	476	591	1067
Jasper [3]	10	10	20	1	5	6	1	8	9	3	1	4	15	24	39
Key West	19	33	52	21	21	42	6	12	18	6	11	17	52	77	129
Kissimmee [1 6]	14	32	46	7	19	26	9	15	24	4	9	13	34	75	109
LaBelle [1]	7	9	16	1	7	8	4	1	5	2	3	5	14	20	34
Lake Butler [1]	5	12	17	1	5	6	3	4	7	1	2	3	10	23	33
Lake City	31	30	61	12	21	33	14	15	29	7	4	11	64	60	124
Lakeland [1 6]	49	72	121	43	42	85	20	34	54	21	37	58	133	185	318
Largo [1 6]	5	27	32	4	9	13	6	12	18	5	5	10	20	53	73
Leesburg [6]	12	14	26	12	13	25	9	8	17	14	6	20	47	41	88
Lemon City	15	13	28	6	7	13	5	7	12	1	2	3	27	29	56
Live Oak [1 6]	17	18	35	14	19	33	5	9	14	1	7	8	37	53	90
Lynn Haven	0	4	4	2	3	5	2	2	4	0	2	2	4	11	15
Madison [1]	15	6	21	8	7	15	13	24	37	3	7	10	39	44	83
Marianna [1]	4	18	22	6	12	18	3	17	20	4	7	11	17	54	71
Mayo	7	6	13	5	6	11	1	5	6	3	3	6	16	20	36
Melbourne [1]	12	21	33	6	16	22	3	5	8	9	4	13	30	46	76
Miami [6]	115	172	287	84	107	191	76	81	157	46	48	94	321	408	729
Milton	18	20	38	11	16	27	9	18	27	7	4	11	45	58	103
Monticello	5	11	16	3	13	16	2	4	6	3	5	8	13	33	46
Montverd (Ind.)	29	26	55	6	18	24	6	7	13	5	8	13	46	59	105
Mulberry [1]	9	18	27	11	16	27	3	1	4	5	10	15	28	45	73
Muscogee	3	5	8	6	1	7	2	2	4	1	1	2	12	9	21
New Smyrna [1 6]	22	21	43	4	17	21	7	5	12	10	4	14	43	47	90
Oakland-Winter Garden [1]	5	11	16	1	4	5	1	5	6	3	6	9	10	26	36
Ocala [1 6]	35	34	69	11	32	43	13	18	31	11	20	31	70	104	174
Okeechobee [3]	9	7	16	5	9	14	3	1	4	0	3	3	17	20	37
Orlando [6]	66	77	143	45	54	99	24	40	64	17	24	41	152	195	347
Oviedo	2	4	6	2	2	4	0	0	0	0	3	3	4	9	13
Palatka [1 6]	20	25	45	11	21	32	6	14	20	5	11	16	42	71	113
Palmetto [1 6]	12	31	43	14	24	38	1	10	11	9	20	29	36	85	121
Panama City [3]	12	16	28	7	8	15	7	6	13	2	4	6	28	34	62
Pensacola [1 6]	72	106	178	40	58	98	33	78	111	17	21	38	162	263	425
Perry [3]	9	16	25	9	14	23	7	5	12	3	11	14	28	46	74
Plant City [1 6]	41	42	83	31	31	62	6	25	31	7	20	27	85	118	203
Punta Gorda [1]	10	14	24	13	7	20	2	6	8	6	4	10	31	31	62
Quincy [1 6]	12	23	35	9	15	24	12	11	23	10	15	25	43	64	107
Redlands	8	10	18	2	4	6	3	2	5	1	3	4	14	19	33
St. Augustine	24	35	59	24	25	49	12	18	30	14	13	27	74	91	165
St. Cloud [3]	7	13	20	3	10	13	1	4	5	7	13	20	18	40	58
St. Pet'burg [6]	87	130	217	73	134	207	51	81	132	30	55	85	241	400	641
Sanford [1]	39	35	74	21	42	63	7	19	26	9	16	25	76	112	188
Sarasota [1 6]	13	16	29	15	13	28	7	8	15	3	1	4	38	38	76
Seabreeze [1 6]	9	13	22	4	12	16	2	8	10	2	7	9	17	40	57
Sebring	8	10	18	1	7	8	2	8	10	6	2	8	17	27	44
Starke	9	10	19	8	5	13	1	3	4	4	6	10	22	24	46
Stuart	5	8	13	5	8	13	2	3	5	1	5	6	13	24	37
Tallahassee [1 6]	28	37	65	23	38	61	17	21	38	10	21	31	78	117	195
Tampa [1 6 7]	180	231	411	133	207	340	81	109	190	73	92	165	467	639	1106
Tarpon Spgs. [6]	9	17	26	14	13	27	8	10	18	4	4	8	35	44	79
Titusville [3]	5	17	22	4	6	10	7	3	10	3	9	12	19	35	54
Trenton	5	12	17	0	11	11	3	1	4	1	4	5	9	28	37
Umatilla	3	8	11	6	11	17	2	2	4	2	1	3	13	22	35
Vero	8	18	26	3	7	10	1	5	6	5	4	9	17	34	51

TABLE I—Continued

Enrollment in Florida High Schools
(4 Year High Schools)

Location of School	GRADES														
	9th			10th			11th			12th			Grand Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Waldo [1]	2	3	5	1	2	3	0	0	0	1	1	2	4	6	10
Wauchula [1] [6]	28	29	57	15	15	30	6	22	28	13	16	29	62	82	144
Webster [4]	15	16	31	4	5	9	4	1	5	2	1	3	25	23	48
W. Palm B'ch [6]	43	56	99	31	52	83	24	34	58	10	33	43	108	175	283
Williston [3]	5	6	11	7	7	14	1	7	8	0	6	6	13	26	39
Winter Haven [1]	20	25	45	20	24	44	22	19	41	9	27	36	71	95	166
Zephyrhills [3]	6	10	16	7	5	12	5	4	9	3	5	8	21	24	45
	2078	2713	4791	1365	2033	3398	884	1348	2232	657	1017	1674	4984	7111	12095

[1] On Senior List of State Department 1920-21.
[2] On Junior List of State Department 1920-21.
[3] On Intermediate List of State Department 1920-21.
[4] Statistics for 1916-17.
[5] Statistics for 1917-18.
[6] Member of Southern Association of Colleges and Secondary Schools 1920-21.
[7] These figures include 180 boys and 231 girls enrolled in the two Junior High Schools in the ninth grade.

TABLE II

Enrollment in Florida High Schools
(3 Year High Schools)

Location of School	GRADES											
	9th			10th			11th			Gr'd Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Clermont [1]	6	3	9	2	2	4	1	0	1	9	5	14
Floral City	2	5	7	0	4	4	0	2	2	2	11	13
Ft. White	16	3	19	5	5	10	1	6	7	22	14	36
Geneva	2	3	5	1	1	2	0	1	1	3	5	8
Greenwood	3	7	10	0	3	3	1	2	3	4	12	16
Groveland [1]	4	6	10	2	1	3	2	1	3	8	8	16
Havana [1]	6	13	19	6	13	19	3	2	5	15	28	43
Jupiter	5	2	7	0	0	0	2	0	2	7	2	9
Lake Wales [2]	7	4	11	8	1	9	0	10	10	15	15	30
Macclenny	2	6	8	3	2	5	0	2	2	5	10	15
Melrose	5	5	10	1	5	6	0	3	3	6	13	19
Micanopy	4	18	22	2	2	4	4	4	8	10	22	32
Newberry	8	10	16	1	5	6	0	1	1	9	16	25
Pinetta	1	4	5	1	5	6	0	3	3	2	12	14
White Springs	4	17	21	1	3	4	3	3	6	8	23	31
Winter Park	4	10	14	4	6	10	4	4	8	12	20	32
Grand Total	79	114	193	37	58	95	21	44	65	137	216	353

[1] On Junior List of State Department 1920-21.
[2] On Intermediate List of State Department 1920-21.

TABLE III

Enrollment in Florida High Schools
(2 Year High Schools)

Location of School	GRADES								
	9th			10th			Grand Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Altha [1]	6	13	19	0	6	6	6	19	25
Alva	4	8	12	3	2	5	7	10	17
Anthony	2	2	4	3	3	6	5	5	10
Archer	2	1	3	3	1	4	5	2	7
Baker	7	3	10	3	3	6	10	6	16
Bell	2	1	3	0	4	4	2	5	7
Branford	4	4	8	0	1	1	4	5	9
Brooker	2	2	4	0	6	6	2	8	10
Bunnell [2]	1	10	11	1	4	5	2	14	16
Campbellville	2	1	3	0	1	1	2	2	4
Carrabelle	1	3	4	3	0	3	4	3	7
Center Hill	0	2	2	2	5	7	2	7	9
Century	3	3	6	0	5	5	3	8	11
Chattahoochee	4	1	5	1	3	4	5	4	9
Citra	3	2	5	0	5	5	3	7	10
Cocoanut Grove [1]	6	6	12	1	6	7	7	12	19
Coleman	4	3	7	2	1	3	6	4	10
Concord [2]	2	7	9	0	3	3	2	10	12
Dania [1]	2	7	9	5	1	6	7	8	15
Elfers [2]	5	2	7	1	2	3	6	4	10
Enterprise [2]	3	4	7	3	3	6	6	7	13
Frostproof [1]	7	3	10	4	4	8	11	7	18
Greensboro [1]	2	4	6	5	11	16	7	15	22
Greenville	2	1	3	1	3	4	3	4	7
Gretna [1]	5	3	8	1	2	3	6	5	11
Haines City	2	4	6	1	3	4	3	7	10
Hastings	4	11	15	2	2	4	6	13	19
Hawthorne	1	2	3	4	5	9	5	7	12
Hilliard	2	1	3	2	0	2	4	1	5
Jennings [1]	4	7	11	1	4	5	5	11	16
Kathleen	3	5	8	2	4	6	5	9	14
Lake Worth	13	22	35	2	9	11	15	31	46
Larkins	2	2	4	5	4	9	7	6	13
Laurel Hill	5	2	7	0	5	5	5	7	12
Lawtey	3	6	9	0	2	2	3	8	11
Lecanto	0	2	2	0	3	3	0	5	5
McIntosh [1]	5	3	8	0	2	2	5	5	10
Millville [1]	13	9	22	6	4	10	19	13	32
Mt. Dora [1]	3	9	12	1	2	3	4	11	15
Oxford	6	10	16	2	0	2	8	10	18
Safety Harbor	4	8	12	2	3	5	6	11	17
Sebastian	1	3	4	3	1	4	4	4	8
Summerfield	3	3	6	1	3	4	4	6	10
Wildwood [1]	4	6	10	1	3	4	5	9	14
Zellwood	2	3	5	0	3	3	2	6	8
Grand Total	161	214	375	79	146	224	238	361	599

[1] On Junior List of State Department 1919-20.

[2] Statistics for year 1919-20.

TABLE IV

Enrollment in Florida High Schools
(1 Year High Schools)

Location of School	GRADES		
	9th Grade		
	Boys	Girls	Total
Aucilla	3	3	6
Belleview	1	2	3
Brewster	5	4	9
Bristol	3	2	5
Cedar Keys	5	2	7
Crystal River	1	0	1
Gardner	5	2	7
Hernando	1	2	3
Montbrook	1	0	1
Morriston	1	3	4
Ocoee	2	4	6
Reddick	1	2	3
St. Andrews	5	3	8
Sopchoppy	1	1	2
Wellborn	4	5	9
Grand Total	39	35	74

TABLE V

Total High School Enrollment Classified According to Kind of High Schools

Kind of School	No. of Schools	GRADES							
		9th	10th	11th	12th	Boys	Girls	Total	Percent of Total
1-Year	15	74	.....	.....	.....	39	35	74	.5
2-Year	45	375	224	.....	.....	238	361	599	4.5
3-Year	16	193	95	65	.....	137	216	353	2.7
4-Year	98	4791	3398	2232	1674	4984	7111	12095	92.3
Total	174	5433	3717	2297	1674	5398	7723	13121	
Percent	.....	41.4	28.3	17.4	12.9	41.1	58.9	.....	100

To say there are only 98 four-year high schools in all the state may seem disparaging, but the bright side of the picture is revealed when we realize that 92.3 per cent of all the pupils

are enrolled in these, while only 5 per cent are enrolled in the 60 one and two-year high schools.

It is unfortunate to realize that in Florida, as in every other state, nearly one-half (41.4 per cent) of all the high school pupils are in the 9th grade, and over two-thirds (69.7 per cent) are in the first two years of high school, whereas only 12.9 per cent are in the 12th grade.

Let us next see how many months in the year pupils attend high school. That is, how many months the high schools run in which the pupils are enrolled. Table VI gives the enrollment according to the length of term the schools run, while table VII classifies the high schools on the basis of the number of months run. Tables VI and VII follow.

TABLE VI

High School Enrollment Classified According to the Length of Term

Kind of School	No. of Schools	Average No. Pupils per School	NUMBER OF MONTHS						
			5-mo.	6-mo.	7-mo.	8-mo.	9-mo.	Total	Percent of Total
1-Year	15	5	.....	5	20	40	9	74	.5
2-Year	45	13	11	61	23	399	105	599	4.5
3-Year	16	22	.....	.....	30	323	.....	353	2.7
4-Year	98	123	.....	.....	.....	2607	9488	12095	92.3
Total	174	75	11	66	73	3369	9488	13121	
Percent	.....	.....	.1	.5	.6	25.7	73.1	.....	100

TABLE VII

High Schools Classified According to Length of Term

Kind of School	No. of Schools	Number of Months Run					Percent of Total
		5-mo.	6-mo.	7-mo.	8-mo.	9-mo.	
1-Year	15	.....	1	4	9	1	8.6
2-Year	45	1	4	3	32	5	25.9
3-Year	16	.....	.....	2	14	.....	9.1
4-Year	98	.....	.....	.....	45	53	56.4
Total	174	1	5	9	100	59	
Percent	.....	.6	3.	5.2	57.4	33.8	100

From table VII we see that only 33.8 per cent of all the high schools run nine months, yet table VI shows they enroll 73.1 per cent of all the pupils; and that while 57.4 per cent of all the schools run only eight months, yet they enroll only 25.7 per cent of all the pupils. These conditions reveal the fact that 92.3 per cent of all the pupils are enrolled in four-year high schools, which makes the situation exceedingly promising.

Table VIII is inserted at this point for the purpose of giving the reader a clearer conception of the development of the high school since inspection began. These data were taken from the Biennial Reports of the State High School Inspector. The exact classification of high schools is reproduced here which accounts for the seemingly confusing terminology in the classification.

TEACHING FORCE

Another way to get a good idea of the status of the high school is to consider the teaching force thereof. The old saying, "As is the teacher so is the school," applies as truly to the high school as to any part of the school system. Hence the purpose of the chapter is to ascertain the following facts concerning the teaching force of the Florida high schools: How many high school teachers are there in the state giving full time to the high school; where were these high school teachers trained; what per cent of these high school teachers is men, and what per cent is women; what per cent of the men and women teachers were new in their jobs last year; how long do the teachers work in one place? etc. The answers to these questions should give us a little keener insight into the status of our high schools.

Table IX which follows gives the total number of high school teachers classified according to sex and type of school; table X shows the number of teachers classified according to the size of the school they work in; and table XI shows the number of teachers classified according to the size of the high school as measured by the number of teachers in the high school faculty. The tables follow.

TABLE VIII

Total Enrollment in All Florida High Schools from 1907 to 1921

Year	Classes and Number of High Schools																Grades												
	3rd Class	2nd Class	1st Class	2-Year [2]	3-Year [3]	4-Year [4]	4-Year [5]	1-Year	2-Year [1]	2-Year	3-Year	Senior	Intermed.	Junior	Irregular	Total	9th		10th		11th		12th		Boys		Girls		Total
																	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
1907-08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	783	42.6	454	24.2	350	19.6	251	13.6	718	39.1	1120	60.9	1838
1908-09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	917	42	559	25.6	389	17.8	319	14.6	880	40.3	1308	59.7	2184
1909-10	39	10	29	....	....	....	....	....	....	....	....	....	....	....	8	86	1420	46.8	824	27.2	446	14.7	341	11.3	1252	41.3	1779	58.7	3031
1910-11	....	....	....	....	....	....	....	....	6	15	9	29	....	....	14	73	1218	45.4	789	29.4	406	15.1	270	10.1	1057	39.4	1626	60.6	2683
1911-12	....	....	....	....	....	....	....	....	12	13	10	30	....	....	18	83	1650	47	971	27.7	544	15.5	343	9.8	1378	39.3	2130	60.7	3508
1912-13	....	....	....	....	....	....	....	....	....	25	8	32	....	....	17	82	1883	43.2	1254	28.7	769	17.6	458	16.5	1815	41.6	2549	58.4	4364
1913-14	....	....	....	....	....	....	....	....	....	23	11	39	....	....	14	87	2110	43	1363	28	846	18	552	11	1876	39	2995	61	4871
1914-15	....	....	....	22	12	12	51	....	....	....	....	....	....	....	....	97	1987	44	1152	26	737	16	613	14	1829	41	2660	59	4489
1915-16	....	....	....	23	16	11	55	....	....	....	....	....	....	....	....	105	2650	42.6	1663	26.8	1128	18.1	778	12.5	2743	44.1	3476	55.9	6219
1916-17	....	....	....	....	....	....	....	....	....	....	....	40	21	25	26	112	2670	43.3	1678	27	1042	16.8	823	13.2	2676	43.1	3537	56.9	6213
1917-18	....	....	....	....	....	....	....	....	....	....	....	48	21	16	18	103	2858	40.2	1989	28	1312	18.5	949	13.3	2847	40.1	4261	59.9	7108
1918-19	....	....	....	....	....	....	....	....	....	....	....	48	23	10	....	81	3126	40.2	2006	25.8	1439	18.5	1166	15.5	3030	40	4737	60	7767
1919-20	....	....	....	....	....	....	....	....	....	....	....	38	13	15	....	66	2678	40	1811	26.9	1212	18	1042	15.1	2723	40.5	4020	59.5	6743
1920-21 [6]	....	....	....	....	16	....	98	15	....	45	....	....	....	2 [7]	....	176	5433	41.4	3717	28.3	2297	17.5	1674	12.8	5398	41.1	7723	58.9	13121

[1] Principal teaches 8th, 9th and 10th grades.
[2] With at least one teacher's whole time.
[3] Regardless of the number of teachers.
[4] With less than three teachers.
[5] With three or more teachers.
[6] See discussion in Bulletin for explanation of groups in this year.
[7] This refers to the modern use of the term in case of these two schools.

TABLE IX

Showing the Number and Percentage of Teachers in the Various Kinds of High Schools

Kind of School	No. of Schools	NO. TEACHERS			
		Men	Women	Total	
				No.	%
1-Year	15	8	7	15	2.3
2-Year	45	38	14	52	8.1
3-Year	16	18	10	28	4.4
4-Year	98	166	380	546	85.2
Total	174	230	411	641	
Percent of Total		35.9	64.1		100

TABLE X

High Schools Classified According to Number of Teachers Employed

Kind of School	No. of Schools	NUMBER TEACHERS									
		One-Teacher	Two-Teacher	Three-Teacher	Four-Teacher	Five-Teacher	Six-Teacher	Seven-Teacher	Eight-Teacher	Nine-Teacher	Over 9 Teachers
1-Year	15	15									
2-Year	45	38	7								
3-Year	16	7	7	1	1						
4-Year	98	3	13	14	23	15	8	8	5	2	7
Total	174	63	27	15	24	15	8	8	5	2	7
Percent		36.2	15.5	8.6	13.8	8.6	4.6	4.6	2.9	1.2	4

TABLE XI

Showing the Distribution of Teachers Classified According to the Size of the High School as Measured by the Number of Teachers in the High School Faculty

Kind of School	No. of Schools	NUMBER OF TEACHERS									
		One-Teacher	Two-Teacher	Three-Teacher	Four-Teacher	Five-Teacher	Six-Teacher	Seven-Teacher	Eight-Teacher	Nine-Teacher	Over 9 Teachers
1-Year	15	15									
2-Year	45	38	14								
3-Year	16	7	14	3	4						
4-Year	98	3	26	42	92	75	48	56	40	18	146
Total	174	63	54	45	96	75	48	56	40	18	146
Percent		9.8	8.4	7.1	14.9	11.7	7.5	8.8	6.2	2.8	22.8

There are several interesting facts contained in tables IX to XI. For the sake of brevity, a few of the chief ones can be stated as follows:

85.2 per cent of all high school teachers work in four-year high schools, while only 14.8 per cent are employed in one, two, and three-year high schools.

35.9 per cent of all high school teachers are men and 64.1 per cent are women.

36.2 per cent of all high schools are one-teacher high schools.

15.5 per cent of all high schools are two-teacher high schools.

Over one-half (51.7 per cent) of all high schools of the state are one and two-teacher high schools.

Practically three-fourths (74.1 per cent) of all the high schools of the state are four-teacher high schools or less.

While 36.2 per cent of all the high schools are one-teacher high schools, they employ only 9.8 per cent of all the teachers.

While 51.7 per cent of all the high schools are one and two-teacher high schools, they only employ 18.2 per cent of all the teachers.

While 74.1 per cent of all the high schools are four-teacher high schools or less, they only employ 40.2 per cent of all the teachers.

Practically one-fourth (22.8 per cent) of all the teachers work in high schools with over nine teachers in the faculty.

Another important question in this connection is: Where were these high school teachers trained? It was practically impossible to obtain these data for every teacher in the state, consequently the writer took the 36 high schools which are members of the Southern Association of Colleges and Secondary Schools as a basis. He had the data for these schools already in hand, as it is called for in the Southern Commission blank which each high school principal fills. Although the following table covers only the 36 best and largest high schools in the state, yet the writer feels that it fairly well represents the state-wide situation. Table XII which gives these data is followed by table XIII which is merely a summary of table XII. With this explanation the tables follow.

TABLE XII

Table Showing the Higher Institutions in Which the Principals and Teachers Were Trained Who Work in the Thirty-six Florida High Schools Which Are Members of the Southern Association of Colleges and Secondary Schools.[1]

Name of School	State or Country	Teachers Holding a Bachelor's Degree or More			Teachers Not Holding a Bachelor's Degree			Grand Total
		Men	Women	Total	Men	Women	Total	
Agnes-Scott College	Ga.	0	4	4				4
Alabama Polytechnic	Ala.	0	1	1				1
Alabama, University of	Ala.	1	0	1				1
Alma College	Mich.	0	1	1				1
Andrew College	Ga.	0	1	1				1
Arkansas, University of	Ark.	0	2	2				2
Athens College	Ga.	0	1	1				1
Austin College	Texas	1	0	1				1
Baker College	Kan.	0	1	1				1
Beloit College	Wis.	0	2	2				2
Berea College	Ky.	0	1	1				1
Bowling Green Bus. Univ.	Ky.	1	1	2	0	1	1	3
Brenau College	Ga.	0	2	2				2
Burritt College	Tenn.	1	0	1				1
Carson-Newman College	Va.	3	1	4				4
Chicago, University of	Ill.	2	3	5	0	1	1	6
Citadel College	S. C.	1	0	1				1
Colorado St. Teach's Coll.	Colo.	1	0	1				1
Columbia College	Fla.	1	1	2	0	4	4	6
Columbia, University of	N. Y.	0	2	2				2
Converse College	S. C.	1	0	1				1
Cornell University	N. Y.	1	1	2				2
Culver Stockton College	Mo.	0	1	1				1
Cumberland University	Tenn.	0	1	1				1
DePauw University	Ind.	0	2	2				2
Dartmouth College	N. H.	1	0	1				1
Davis-Elkin College	W. Va.	0	1	1				1
Earlham College	Ind.	1	0	1				1
Elizabeth College	Va.	0	1	1				1
Emory University	Ga.	3	0	3				3
Ecuador, University of	Ecuador				0	1	1	1
Florida St. Coll. for Women	Fla.	0	50	50	0	2	2	52
Florida State Normal	Fla.				0	1	1	1
Florida, University of	Fla.	14	0	14	3	3	6	20
France (some institution)	France	2	2	4	1	2	3	7
Franklin College	Ind.	1	0	1				1
Furman University	S. C.	1	2	3				3
George Washington Univ.	D. C.	0	0	0	0	1	1	1
Georgia N. and Ind. Coll.	Ga.	0	1	1	0	2	2	3
Georgia, University of	Ga.				0	1	1	1
Goshen College	Ind.	0	1	1				1
Goucher College	Md.	0	2	2				2
Grinnell College	Ia.	0	2	2				2

TABLE XII—Continued

Name of School	State or Country	Teachers Holding a Bachelor's Degree or More			Teachers Not Holding a Bachelor's Degree			Grand Total
		Men	Women	Total	Men	Women	Total	
Gym. City Bus. Coll.	Ill.				0	1	1	1
Hamilton College	Ky.				0	1	1	1
Harvard University	Mass.	1	0	1				1
Hampden-Sidney College	Va.	3	0	3				3
Hillsdale College	Mich.	1	0	1				1
Howard College	Ala.				0	1	1	1
Illinois, University of	Ill.	0	8	8	0	0	0	8
Indiana State Normal	Ind.	4	1	5	0	0	0	5
Indiana, University of	Ind.	0	1	1				1
Iowa State Normal	Ia.				0	1	1	1
Kalamazoo College	Mich.				0	1	1	1
Kansas A. & M. College	Kan.	0	1	1				1
Kansas State Normal	Kan.	0	1	1	1	0	1	2
Kansas, University of	Kan.	0	1	1				1
Kentucky, University of	Ky.	0	3	3				3
Knox College	Ill.	0	1	1				1
Leland Stanford University	Cal.	1	1	2	0	1	1	3
Liberty College	Ky.	0	1	1				1
Lima College	Ohio	1	0	1				1
Louisiana, University of	La.	1	1	2				2
Mars Hill College	N. C.				1	0	1	1
Martha Washington Coll.	Miss.	0	1	1				1
Marquette College	Wash.	1	2	3				3
Marvin College	Ky.	0	1	1				1
Meridian College	Miss.	2	0	2				2
Michigan State Normal	Mich.				1	0	1	1
Michigan, University of	Mich.	0	1	1				1
Minnesota, University of	Minn.	1	1	2				2
Mississippi A. & M. Coll.	Miss.	1	0	1				1
Miss., University of	Miss.	1	1	2				2
Miss. State Normal	Miss.				0	1	1	1
Missouri St. Teach's Coll.	Mo.	1	1	2				2
Missouri, University of	Mo.	0	1	1				1
North Carolina, Univ. of	N. C.	2	0	2	0	1	1	3
North Dak. A. & M. Coll.	N. Dak.	1	0	1				1
New Hampshire College	N. H.				1	0	1	1
Oberlin College	Ohio	0	1	1				1
Ohio, University of	Ohio	1	2	3	1	0	1	4
Oklahoma A. & M. College	Okla.	0	1	1				1
Oxford College	Ohio	1	0	1				1
Palmer College	Fla.				0	1	1	1
Peabody Coll. for Teachers	Tenn.	2	3	5	0	2	2	7
Pennsylvania A. & M. Coll.	Penn.	1	0	1				1
Pennsylvania, Univ. of	Penn.	0	1	1				1
Piedmont College	Ga.	0	1	1	0	1	1	2
Phillips University	Okla.	0	1	1				1
Princeton University	N. J.	1	0	1				1
Randolph-Macon Coll. (men)	Va.	2	0	2				2

TABLE XII—Continued

Name of School	State or Country	Teachers Holding a Bachelor's Degree or More			Teachers Not Holding a Bachelor's Degree			Grand Total
		Men	Women	Total	Men	Women	Total	
Randolph-Mac. Coll. (wom.)	Va.	0	6	6				6
Reynolds College	Texas				1	0	1	1
Richmond College	Va.	0	1	1				1
Rollins College	Fla.	1	2	3	0	1	1	4
Royal Naval College	England	1	0	1	0	0		1
San Antonio College	Texas				0	1	1	1
Scarrett College	Mo.	0	1	1				1
Smith College	Mass.	0	1	1				1
Shorter College	Ga.	1	0	1				1
Southern College	Fla.	1	1	2	1	0	1	3
South'n Methodist Univ.	Texas	0	1	1	0	1	1	2
Southern Normal School	Ky.	2	0	2	0	0	0	2
South Dakota, Univ. of	S. Dak.	0	1	1				1
South Carolina, Univ. of	S. C.	1	0	1				1
Stetson University	Fla.	3	11	14	0	1	1	15
Stout Institute	Wis.				1	1	2	2
Swarthmore College	Pa.	1	2	3				3
Syracuse University	N. Y.	0	1	1				1
Tennessee, University of	Tenn.				0	1	1	1
Valparaiso University	Ind.	2	0	2	1	0	1	3
Virginia, University of	Va.	0	1	1				1
Virginia Military Institute	Va.	1	0	1				1
Wake Forrest College	N. C.	1	0	1				1
Wentworth Academy	Mass.	1	0	1				1
Wentworth Institute	Mass.				1	0	1	1
Wesleyan College	Ga.	0	5	5	0	1	1	6
West Va., University of	W. Va.	2	1	3				3
Western College	Ohio	0	1	1				1
Westminster College	Pa.	0	1	1				1
William Jewell College	Mo.	1	0	1				1
Williams College	Mass.				1	0	1	1
Winthrop N. and Ind. Coll.	S. C.	0	2	2	0	1	1	3
Wisconsin, University of	Wis.	2	2	4				4
Wittenburg College	Ohio	1	0	1				1
Wooster College	Ohio	1	0	1				1
None or not given					0	6	6	6
TOTAL		91	171	262	14	51	65	327
Percent of Total		28	52	80	4.3	15.7	20	100

[1] Not all the institutions listed above are recognized as standard by the Southern Association of Colleges and Secondary Schools.

TABLE XIII

Table Showing Summary by States Where the Principals and Teachers Were Trained Who Work in the Thirty-six Florida High Schools Which Are Members of the Southern Association of Colleges and Secondary Schools.[1]

States in Which Higher Institutions Are Located	Teachers Holding a Bachelor's Degree or More	Teachers Not Holding a Bachelor's Degree	Grand Total
Florida	85	17	102
Georgia	19	5	24
Virginia	19	0	19
Illinois	14	2	16
Indiana	13	1	14
Kentucky	10	2	12
Ohio	9	1	10
Tennessee	7	3	10
South Carolina	8	1	9
Wisconsin	6	2	8
Mississippi	6	1	7
Missouri	6	0	6
Pennsylvania	6	0	6
Kansas	4	1	5
North Carolina	3	2	5
New York	5	0	5
Michigan	3	2	5
Texas	2	3	5
Massachusetts	4	1	5
West Virginia	4	0	4
Washington	3	0	3
Iowa	2	1	3
California	2	1	3
Alabama	2	1	3
Louisiana	2	0	2
Minnesota	2	0	2
Maryland	2	0	2
Oklahoma	2	0	2
Arkansas	2	0	2
New Hampshire	1	1	2
Colorado	1	0	1
New Jersey	1	0	1
North Dakota	1	0	1
South Dakota	1	0	1
District of Columbia	0	1	1
Ecuador	0	1	1
England	1	0	1
France	4	3	7
Not given	0	12	12
Total	262	65	327
Percent of Total	80	20	100

[1] Palmer College and Florida Military Academy are considered here since they are both members of the Southern Association of Colleges and Secondary Schools.

The outstanding facts of tables XII and XIII are:

There are teachers from 126 higher institutions of learning out of the state. These institutions represent 34 states, the District of Columbia and 3 foreign nations.

Only 31.1 per cent of all the high school teachers in these schools were trained in any kind of higher institution of learning in the State of Florida.

80 per cent of all the teachers are college graduates.

The 68.9 per cent of teachers in these 36 high schools trained outside of Florida, do not represent any one state or higher institution of learning, but come from a large number of institutions scattered over a wide range of territory.

Still another interesting question in this connection is: How long have the teachers in these high schools worked in their present positions? Two tables dealing with the question are presented here. Table XIV which includes all the high school teachers of the state, shows only the number and per cent of teachers that are serving their first year in their positions. Table XV which included all the teachers for the 36 Southern Association high schools, shows the number of years each teacher has been in his or her present position. Tables XIV and XV follow.

TABLE XIV

Showing Number and Percent of High School Teachers New in System

Kind of School	No. of Schools	No. of Teachers	NEW TEACHERS IN SYSTEM					
			Men		Women		Total	
			No.	%	No.	%	No.	%
1-Year	15	15	3	37.5	.....	.....	3	20
2-Year	45	52	24	63.1	14	100	38	73.1
3-Year	16	28	6	33.3	5	50	11	40
4-Year	98	546	82	49.4	193	50.8	275	50.4
Total	174	641	115	50	212	51.6	327	51

TABLE XV

Showing the Tenure of the Principals and Teachers in the Thirty-six High Schools Which Are Members of the Southern Association of Colleges and Secondary Schools.[1]

Years in Present High School	PRINCIPALS (All Men)	TEACHERS							
		Teachers Trained in Higher Institutions in Florida			Teachers NOT Trained in Higher Institutions in Florida			Total	Per Cent
		Men	Women	Total	Men	Women	Total		
First	11	10	35	45	22	72	94	150	46
Second	7	3	13	16	15	24	39	62	19
Third	6	4	12	16	8	17	25	47	14.4
Fourth	5		3	3	2	5	7	15	4.6
Fifth			6	6	1	6	7	13	4.1
Sixth			4	4		5	5	9	2.7
Seventh	1		1	1		2	2	4	1.2
Eighth	2		1	1	1	2	3	6	1.8
Ninth	1				1	2	3	4	1.2
Tenth	1		1	1		3	3	5	1.4
Eleventh			1	1	2	3	5	6	1.8
Twelfth	1							1	.3
Thirteenth	1					1	1	2	.6
Fifteenth						1	1	1	.3
Sixteenth						1	1	1	.3
Twenty-second			1	1				1	.3
Total	36	17	78	95	52	144	196	327	
Percent		31.1 [2]			68.9				100

[1] Palmer College and Florida Military Academy are considered here since they are both members of the Southern Association of Colleges and Secondary Schools.

[2] This percentage is arrived at by adding to the 95 teachers 7 principals who were trained in higher institutions of learning in Florida.

From a study of these tables we see that:

50 per cent of the men teachers and 51.6 per cent of the women teachers, or a total of 51 per cent of all the teachers, are new in their positions.

46 per cent of all the teachers and principals in these 36 high schools are new in their positions.

Practically two-thirds (65 per cent) of all the teachers in these 36 high schools are new or are serving their second year.

Practically four-fifths (79.4 per cent) of all the teachers and principals in these 36 high schools have served only two years or less in their positions.

Numerous problems connected with a state school system arise from a situation like this. Space will permit of the discussion of only a few of them. In the first place, it is almost impossible to organize a system under such conditions. Scarcely is the machinery of organization set up before the term is over and it is all to be done over again. In fact it is extremely difficult to get anywhere when more than two-thirds of all the high school teachers are trained outside the state, and when over half of the entire teaching force are new each year in their positions. Close organization, team-work, continuity of purpose and effort, and the like, can scarcely flourish in such an atmosphere.

Two elements enter into this situation. One is the "tourist teacher" who "winters" in Florida. On the salary which the high school teacher receives, she can pay her railroad fare each way, afford comfortable living quarters, and have enough left to "see Florida" at odd times and during the holidays. For such people it is merely a lark and a winter's outing on the great playgrounds of the South. Of course this is not true of all the teachers coming into the state. Many of them settle down to continuous years of faithful service, but it is true of too large a per cent.

A second element which aggravates this situation is the great moving, restless spirit prevailing among the permanent high school teachers of the state. That there is too much of this among our permanent teachers is self evident and needs no comment here.

The fact that over two-thirds (68.9 per cent) of all the high school teachers must be secured from outside the state, intensifies the seriousness of our certification problem. The law providing for the transfer of standard certificates from other states should go a long ways, however, towards alleviating this problem. Personally, the writer feels we should proceed on two fundamental bases of operation. The first is we should strive to get certification of teachers pitched on the basis of training received in standard, recognized normal schools, colleges and universities. The quicker we shift to that basis from the present "flying squadron" and "court-house examination" basis, the sooner will we get better teaching service. This is no reflection on the personnel of the "flying squadron" but it is an attack upon the present method of cer-

TABLE XVI

4-Year High School Curriculum

LOCATION OF SCHOOL	No. Teachers: Men	No. Teachers: Women	No. Teachers: Total	No. Pupils: Boys	No. Pupils: Girls	No. Pupils: Total	Total No. of Units	English	Foreign Language: Latin	Foreign Language: French	Foreign Language: Spanish	Mathematics: Arithmetic	Mathematics: Algebra	Mathematics: Plane Geom.	Mathematics: Solid Geom.	Mathematics: Trigonometry	Social Sciences: Ancient Hist.	Social Sciences: Mid. Mod. Hist.	Social Sciences: English Hist.	Social Sciences: Am. Hist.—Civics	Social Sciences: Sociology	Social Sciences: Economics	Natural Sciences: Phys. Geog.	Natural Sciences: Gen. Science	Natural Sciences: Physiology	Natural Sciences: Botany	Natural Sciences: Zoology	Natural Sciences: Physics	Natural Sciences: Chemistry	Vocational: Commercial: Com. Law	Vocational: Commercial: Bookkeeping	Vocational: Commercial: Shorthand	Vocational: Commercial: Typewriting	Vocational: Man. Tr.: Man. Tr.	Vocational: Man. Tr.: Mch. Drawing	Vocational: Dom. Sci.: Cooking	Vocational: Dom. Sci.: Sewing	Vocational: Dom. Sci.: Agriculture	Avocational: Music	Avocational: Drawing	Teacher Training: Arithmetic	Teacher Training: Reviews	Teacher Training: Psychology
Alachua	3	3	4	39	60	99	16	4	1				1	1			1	1	1				½	½		½	½																½		1
Apopka	2	2	4	13	16	29	12	4	1			½		1	½		1		1																											
Apalachicola	1	3	4	14	22	36	12½	4	1					1			1	1	1					1			½	½																		
Arcadia	1	5	6	65	99	164	22½	4	1						½		1		1	1							½	½						1		1	1								½	1
Avon Park	2	3	5	16	31	47	17½	4	1																		½	½																		
Barberville	1	2	3	16	21	37	20	4	1																		½	½																		
Bartow	1	7	8	75	106	179	23½	4	2					½	½		1		1	1				½			½	½																½		1
Bonifay	1	2	3	19	25	44	12	4	1					1			1		1								½	½			½	½														
Bowling Green	1	2	3	13	28	41	17	4	1			½		1			1		1								½	½																		1
Bradentown	3	6	9	58	121	205	23	4	3					½	½		1		1				½				½	½																		
Brookstville	1	1	2	44	29	73	20	4	2					1			1		1								½	½																½		1
Bushnell	1	3	4	7	27	34	16	4	2					1			1		1								½	½																		
Chipley	1	3	4	47	67	114	14½	4	2			½		1	½		1		1																											
Clearwater	3	6	9	71	102	173	28	4	2					1	½		1		1								½	½			1	1	1	2	1	1	1									
Cocoa	2	3	5	22	27	49	19	4	2					1	½		1		1								½	½																		
Crescent City	1	1	2	12	16	28	19	4	2					1			1		1								½	½																½		
Dade City	1	3	4	20	61	81	20	4	2					1	½		1		1								½	½																		
Daytona	1	7	8	61	98	159	27	4	2	2				1	½		1		1					1			½	½						1		1	1									
DeFuniak Springs	1	4	5	60	75	135	20	4	2					1	½		1		1								½	½																		
DeLand	3	6	9	55	95	150	23½	4	2					1	½		1		1					½			½	½																½		
Delray	1	2	4	15	25	40	17	4	2					1			1									½	½																			
Dunnellon	2	2	4	17	25	42	20	4	2					1			1										½	½																		
Eau Gallie	2	0	2	11	7	18	14½	4	2			1½		1			1																													
Eustis	1	3	4	33	30	63	20	4	1			½		1	½		1	1	1	1							½	½																		
Fellsmere	0	2	2	5	8	13	14	4						1	½		1																													
Fernandina	2	3	5	7	23	30	14	4	1								1																													
Ft. Lauderdale	2	5	7	60	70	130	20½	4	1	1				1			1																													
Ft. Meade	1	6	7	45	72	117	26	4	2	1				1			1	1	1	1							½	½																		
Ft. Myers	1	4	6	64	73	137	20½	4	2	1				1			1						½				½	½						1		1	1									
Ft. Pierce	2	4	7	35	68	103	29	4	2	2				1	½		1		1								½	½			1	1	1	1		1	1									
Gainesville	2	6	8	103	133	236	23	4	2	2				1	½		1		1								½	½																		
Gonzalez	2	3	4	21	18	39	16	4	1					1			1																													
Graceville	1	1	2	26	22	48	16	4	1					1			1																													
Green Cove Springs	1	2	3	7	20	27	13	4	2					1	½		1		1																											
High Springs	1	3	4	15	21	36	19	4	2					1			1		1					½	½		½	½																		½
Homestead	1	1	2	23	30	53	22½	4	3	1				1	½		1		1					½			½	½																		
Inverness	1	1	2	18	26	45	19½	4	1					1	½		1		1					½			½	½																		
Jacksonville	10	26	35	476	591	1067	43	4	3	2				1	½		1		1				½				½	½			1	2	2	3	2	2	2									
Jasper	1	2	3	15	24	39	19	4	2					1			1		1								½	½																		
Key West	2	3	5	54	124	178	18½	4	2					1	½		1		1				½				½	½																		
Kissimmee	1	4	5	54	75	129	26	4	2	2				1	½		1		1								½	½																		
LaBelle	2	2	4	14	20	34	19	4	3	1		½		1			1		1					½	½		½	½																		
Lake Butler	1	2	3	19	23	42	18½	4	2					1			1		1				½				½	½																		
Lake City	2	5	7	64	60	124	22	4	3	1				1	½		1		1								½	½			1	½														
Lakeland	2	9	11	133	185	318	25½	4	3	1		1½		1	½		1		1								½	½																		
Largo	2	5	7	20	53	73	19	4	2					1			1			1½							½	½																		
Leesburg	2	5	6	47	41	88	21	4	3					1			1			1½							½	½																		
Lemon City	2	2	4	28	45	73	22½	4	1	2				1	½		1			1							½	½																		
Live Oak	1	4	5	37	52	90	24	4	1					1	½		1		1								½	½																		
Lynn Haven	0	2	2	4	11	15	15	4	2					1			1										½	½																		
Madison	3	3	6	39	44	83	31½	4	2					1	½		1		1								½	½																		
Marianna	2	3	5	17	54	71	19	4	2					1	½		1		1								½	½																		
Mayo	2	3	5	30	46	76	21½	4	3					1	½		1		1								½	½																		
Melbourne	6	20	26	321	468	789	39½	4	3	2				1	½		1		1								½	½			2	1	½	2	2	4	4									
Miami	1	3	4	45	58	103	28½	4	3	1				1	½		1		1								½	½			1	1	½													
Monticello	3	4	4	12	33	45	18	4	3	1				1	½		1		1															1		1										
Montverde (Indus.)	3	1	4	46	59	105	19½	4	2	2				1	½												½	½								2	2									
Mulberry	1	5	6	28	45	73	22½	4	2					1			1		1								½	½																½		
Muscogee	1	3	4	12	9	21	21	4	2					1	½		1		1								½	½																		
New Smyrna	1	4	5	43	47	90	23	3	2	2				1	½		1		1								½	½																		
Oakland-Winter Garden	2	0	2	16	26	42	20	4	2					1	½		1		1								½	½																		
Ocala	1	5	6	70	104	174	23	4	3	2				1	½		1		1								½	½																		
Okeechobee	2	3	5	17	20	37	20½	4	3	2				1	½		1		1								½	½																		
Orlando	2	11	13	152	195	347	26	4	4	2				1	½		1		1				½	½		½					1	1	1												1½	
Oviedo	0	3	3	4	9	13	10	4	2	1				1			1																													
Palatka	1	4	5	42	71	113	21	4	2	2				1	½		1		1								½	½																	½	
Palmetto	1	4	6	36	85	121	21	4	2	2				1	½		1		1				½				½	½																	½	
Panama City	1	4	6	22	28	50	21	4	2					1			1		1								½	½			1	1	½													
Pensacola	3	13	16	162	262	425	27½	4	3	2				1	½		1		1								½	½																		
Perry	1	3	4	28	46	74	16½	4	2	2				1	½		1		1	1½							½	½						2	½										½	
Plant City	1	4	5	85	118	203	20	4	4	2				1	½		1		1								½	½								1	2									
Punta Gorda	2	4	6	31	61	92	17½	4	3	2				1	½		1		1								½	½								½	½									
Quincy	1	2	3	43	64	107	22	4	2	2				1	½		1		1								½	½						½												
Redlands	1	2	3	14	19	33	19	4	2	2				1	½		1		1								½	½																		
Sanford	2	5	7	76	112	188	23	4	2	2				1	½		1		1								½	½																		
Sarasota	2	2	4	28	38	66	20	4	2	2				1	½		1		1																	1	1									
Seabreeze	2	3	5	17	40	57	20	4	2	2				1	½		1		1								½	½																		
Sebring	2	3	5	17	37	44	14	4	2	1				1	½		1		1								½	½																		
St. Augustine	1	6	7	74	91	165	20	4	2					1	½		1		1								½	½																		
St. Cloud	1	3	4	18	40	58	16	4	3	2				1	½		1		1					½	½		½	½								1	1								½	
St. Petersburg	7	14	21	241	600	841	29	4	4	2				1	½		1		1					½	½		½	½																		
Starke	1	3	4	22	24	46	18	4	2					1	½		1		1								½	½																	½	
Stuart	0	3	3	12	24	27	16	4	3	2				1	½		1		1	1½							½	½								1	1									
Tallahassee	2	5	7	78	115	193	24	4	3	2				1	½		1		1	1½							½	½								1	1							2		1	2
Tampa	5	19	24	467	639	1106	27½	4	3	2				1	½		1		1				½				½	½						1	1	1	1									
Tarpon Springs	2	3	5	35	44	79	19	4	2				1½	1	½		1		1				½	½			½	½																		
Titusville	1	2	3	19	35	54	18	4	2					1			1										½	½																		
Trenton	1	2	3	9	28	37	15	3	2					1			1										½	½																		
Umatilla	1	2	3	12	26	38	18	3	2					1			1																													
Vero	1	1	2	17	34	51	12	4	2			½		1			1										½	½																		
Waldo	1	0	1	4	10	14	17	4	2					1			1																													
Wauchula	4	2	6	62	82	144	24	4	2					1	½		1										½	½																		
Webster	1	0	1	25	23	48	17	4	2					1			1														½	2	2	2	2	2	2									
West Palm Beach	2	6	8	108	175	283	34½	4	3	3			1½	1			1																													
Williston	1	3	4	13	26	39	16	4	2	2				1			1																													
Winter Haven	2	6	8	71	93	164	23½	4	2	2				1	½		1										½	½																		
Zephyrhills	1	1	2	21	24	45	10½	3						1			1																													
Total	166	280	446	4984	7111	12095																																								

TABLE XVII

3-Year High School Curriculum

NAME OF SCHOOL	No. Teachers: Men	No. Teachers: Women	No. Teachers: Total	No. Pupils: Boys	No. Pupils: Girls	No. Pupils: Total	Total No. of Units	English	Foreign Language: Latin	Foreign Language: French	Foreign Language: Spanish	Mathematics: Algebra	Mathematics: Plane Geom.	Mathematics: Solid Geom.	Mathematics: Trigonometry	Social Sciences: Ancient Hist.	Social Sciences: Mid Mod. Hist.	Social Sciences: English Hist.	Social Sciences: Am. Hist —Civics	Natural Sciences: Phys. Geog.	Natural Sciences: Gen. Science	Natural Sciences: Physiology	Natural Sciences: Botany	Natural Sciences: Zoology	Natural Sciences: Physics	Natural Sciences: Chemistry	Vocational: Commerce	Vocational: Man. Tr'ng	Vocational: Home Econ.	Vocational: Agriculture	Avocational: Music	Avocational: Drawing	Teacher Training: Arithmetic	Teacher Training: Reviews	Teacher Training: Psychology
Clermont	1		1	9	5	14	12	3	3										1																	
Floral City	0		0	2	11	13	8	2																												
Fort White	1		1	22	14	36	10	2	2								1		1																	
Groveland	1		1	8	8	16	11	2	2																											
Geneva	1		1	5	8	13	11	2	2																											
Greenwood	1		1	4	12	16	12	3	3								1		1																	
Havana Ch	1		1	16	28	43	11	3	3																											
Jupiter	1		1	7	2	9	10	2	2																											
Lake Wales	2		2	15	15	30	12½	2	2																											
Macclenny	1		1	6	10	16	12	2	2																											
Melrose	2		2	6	13	19	11½	3	3																											
Micanopy	1		1	10	22	32	11	2	2																											
Newberry	2		2	9	16	25	14	2	2																											
Pinnetta	1		1	12	14	26	13	2	2																											
White Sprin	1		1	8	23	31	14	1½	1	½																										
Winter Par	2		2	12	20	32	16	3	2	1																										
Total	18	10	28	127	216	353																														

TABLE XVIII

2-Year High School Curriculum

NAME OF SCHOOL	No. Teachers: Men	No. Teachers: Women	No. Teachers: Total	No. Pupils: Boys	No. Pupils: Girls	No. Pupils: Total	Total No. of Units	English	Foreign Language: Latin	Foreign Language: French	Foreign Language: Spanish	Mathematics: Arithmetic	Mathematics: Algebra	Mathematics: Plane Geom.	Mathematics: Solid Geom.	Mathematics: Trigonometry	Social Sciences: Ancient Hist.	Social Sciences: Mid. Mod. Hist.	Social Sciences: English Hist.	Social Sciences: Am. Hist.—Civics	Natural Sciences: Phys. Geog.	Natural Sciences: Physiology	Natural Sciences: Gen. Science	Natural Sciences: Botany	Natural Sciences: Zoology	Natural Sciences: Physics	Natural Sciences: Chemistry	Vocational: Commerce	Vocational: Man. Tr'ng	Vocational: Home Econ. Cooking	Vocational: Home Econ. Sewing	Vocational: Home Econ. Agriculture	Avocational: Music	Avocational: Drawing	Teacher Training: Arithmetic	Teacher Training: Reviews	Teacher Training: Psychology
Altha	1	0	1	6	19	25	3	2	2					1					1													1					
Alva	1	0	1	7	10	17	6	2	2								1																			
Anthony	0	1	1	5	5	10	8	2															½		½	½										
Archer	1	0	1	5	9	14	8	2	2																½	½										
Baker	1	0	1	10	6	16	8	2	2																											
Bell	1	0	1	4	6	10	8½										1		1																	
Branford	0	1	1	3	5	8	8½	2	1														½		½	½										
Brooker	1	1	2	2	14	16	9	2	2				1																							
Bunnell[1]	1	0	1	2	4	6	7½																½		½	½										
Campbellton	0	1	1	2	4	6	8	2															½		½	½										
Carrabelle	0	1	1	2	7	9	11	2	2																											
Center Hill	1	0	1	2	6	8	8	2	2																											
Century	1	0	1	5	4	9	8	2	2																											
Chattahoochee	1	0	1	5	9	14	8	2	2																											
Citra	1	0	1	7	12	19	8	2	2																											
Cocoanut Grov	1	0	1	6	10	16	10	2	2				1																							
Coleman	1	0	1	2	10	12	8	2	2																											
Concord	1	0	1	7	8	15	8	2	1																											
Dania	1	0	1	6	7	13	8	2	2																											
Eifers[1]	0	1	1	6	7	13	8	2																												
Enterprise[1]	1	1	2	11	7	18	8	2																												
Frostproof	1	0	1	7	15	22	10	2	2																								2			
Greenshoro	2	0	2	5	4	9	8	2																												
Greenville	1	0	1	6	5	11	8	2	2																											
Grimes	0	1	1	3	10	12	8	2	2																											
Haines City	1	0	1	10	13	19	9	2	2																											
Hastings	1	0	1	5	7	12	11	2	2																											
Hawthorne	1	0	1	5	2	7	9	2	2																											
Hilliard	1	0	1	5	11	16	8	2	1																											
Jennings	1	0	1	5	9	14	8	2	1																											
Kathleen	1	1	2	15	31	46	11	2	2																											
Lake Worth	1	1	2	5	13	18	10	2	2																											
Larkins	1	0	1	5	7	12	8	2	2																											
Laurel Hill	1	0	1	3	8	11	8	2	2																											
Lawtey	0	1	1	5	4	9	8	2	2																											
Lecanto	1	0	1	5	5	10	8	2	2																											
McIntosh	1	0	1	10	13	23	9	2	2																											
Millville	1	0	1	4	11	15	6	2	1																											
Mount Dora	1	0	1	8	10	18	10	2	2																											
Oxford	1	0	1	6	11	17	7	2	2																											
Safety Harbor	1	0	1	4	4	8	9	2																												
Sebastian	1	0	1	5	6	10	13	2	2																											
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tification of teachers. The emphasis is upon the examinations rather than the training received in normal schools, colleges and universities.

In the second place, the writer feels that we cannot be too careful about the health certification of incoming teachers. Too great precaution can scarcely be taken to shield the children of the state from the persons who come to Florida on account of their health. Rigid physical examinations, accompanied by health certificates from home physicians, should be required of all applicants seeking teaching positions.

However, when all is said, the future is promising when we recall that 80 per cent of all the teachers in the best high schools are college graduates; that 35.9 per cent are men; that 92.3 per cent of the pupils and 85.2 per cent of the teachers are in four-year high schools; and that 73.1 per cent of all the high school pupils in the state are in high schools running nine months.

COURSE OF STUDY

In order to show definitely what units each high school is offering, tables XVI, XVII, XVIII, and XIX have been prepared. There is a table for each of the four kinds of high schools. Table XX follows these, and is a summary of some of the chief points of the preceding four.

Thinking it would aid some in getting the situation clear, the number of teachers in each school, the number of pupils in each school, and the total number of units offered by each school are included. All the units offered are grouped arbitrarily under the eight headings found in these five tables. The purpose of these, too, is merely to aid the reader in getting at conditions. Tables XVI to XX are included.

If we try to summarize conditions in general which cover all the four kinds of high schools, we can say that:

> English and Algebra are the only subjects which are offered by every high school. The only exception being the one-year school, which devotes a year to Plane Geometry instead of Algebra.
>
> If we rank the fifteen leading subjects of the curriculum in the order of their importance as measured by their finding a place in the course of study, we have:

English	offered	by	100 %	of	the	schools
Algebra	"	"	99.4%	"	"	"
Ancient History	"	"	89.1%	"	"	"
Latin	"	"	85.6%	"	"	"
Med. & Mod. Hist.	"	"	75.6%	"	"	"
Plane Geometry	"	"	66.6%	"	"	"
Am. Hist. & Civics	"	"	65.5%	"	"	"
General Science	"	"	51.2%	"	"	"
Botany	"	"	50 %	"	"	"
Zoology	"	"	48.7%	"	"	"
Trigonometry	"	"	42.1%	"	"	"
Phys. Geography	"	"	42 %	"	"	"
Physics	"	"	42 %	"	"	"
Solid Geometry	"	"	36.8%	"	"	"
English History	"	"	33.3%	"	"	"

With a few exceptions, modern languages, vocational studies and avocational studies, find no place in the course of study for the one, two and three-year high schools;

The more modern phases of the social sciences, Sociology and Economics, are just beginning to find a place in a few of our stronger high schools;

Health or Hygiene receives practically no attention as a formal study in the high school curriculum.

Agricultural work, other than that done by the Smith-Hughes schools, is practically nil.

The above summary has to do with the spirit of our high schools, as registered by the units offered. Another way to size up the situation is to strike at it from a different angle by seeing how many high school pupils there are in the state taking each course. It is one thing to say that the high schools are offering such and such subjects, but it is quite another to know exactly how many pupils are taking each of these subjects.

The writer felt that it would be rather difficult to get these data, since it would entail a good deal of work on the part of the principals. He secured, however, these data for 63 of these 98 four-year high schools for the scholastic year 1919-20, through the kindness of Professor W. S. Cawthon, State High School Inspector, who had gathered it for his Biennial Report. Economy in printing, however, necessitated its omission. Space here will only permit the giving of the totals. Table XXI below contains these data on registrants in various subjects.

TABLE XXI

Showing the Number of Pupils Registered in Each Subject of the High School for the Scholastic Year 1919-20
(63 four-year high schools included)

ENGLISH		5426
1st year	2248	
2nd year	1414	
3rd year	926	
4th year	838	
MATHEMATICS		5342
Adv. Arithmetic	132	
Algebra	3433	
Plane Geometry	1115	
Solid Geometry	318	
Trigonometry	344	
FOREIGN LANGUAGES		3509
Beginner's Latin	1312	
Caesar	799	
Cicero	197	
Virgil	96	
French	811	
Spanish	294	
SOCIAL SCIENCES		4902
Ancient History	1831	
Med. and Mod. Hist.	1313	
English History	462	
Am. Hist. and Civics	1296	
NATURAL SCIENCES		3182
Physical Geography	531	
General Science	750	
Botany	510	
Zoology	522	
Physics	467	
Chemistry	402	
VOCATIONAL STUDIES		1569
Agriculture	99	
Manual Training	241	
Home Economics	737	
Commercial work	492	
MISCELLANEOUS		513

If we rank these subjects according to the registrants by groups, we have:

English	taken	by	5426	pupils
Mathematics	"	"	5342	"
Social Sciences	"	"	4902	"
Foreign Languages	"	"	3509	"
Natural Sciences	"	"	3182	"
Vocational Studies	"	"	1569	"

Or, if we take them singly by subjects, we have a high correlation with the ranks on page 22 which deals with the number of high schools offering each subject of the curriculum.

Perhaps it is worth while in this connection to make a little running discussion of the course of study. To begin with, it seems a bit strange that only two-thirds as many high schools offer Spanish as French. This is all the more noticeable when we consider our proximity to Mexico, Cuba and other Spanish speaking countries to the south of us, together with the fact that in some localities within the state we have a considerable Spanish speaking population.

Practically two-thirds of all the four-year high schools offer Solid Geometry, and practically three-fourths of them offer Trigonometry.

There are several interesting things about the social sciences. To begin with, English History seems to be on the decline. It is probable that as a separate subject it will disappear from the high school curriculum. Many of our leading educators feel that we should teach English History as a part or phase of European History, so as to give it its proper setting or perspective. Sociology and Economics are making their appearance in some of the larger, stronger four-year high schools. This is a hopeful sign and a strong indication of the lines along which the social studies will develop in the next few years. In fact, there is no phase of our high school curriculum in this state which needs recasting more than our present social science course. It is hoped that we will soon come to the scheme recommended by the committee of the National Educational Association on the Reorganization of Secondary Education.* This committee recommends that we teach American History and Civics, based on an elementary view of old world background, in the earlier grades of the high school, following this by a study of European History, stressing the modern period, and closing the course with an intensive study of American history since the 17th century, especially stressing present problems of American democracy. Such a scheme would break down the present monopoly which classical education has upon the freshman in high school, and thus free him from the strangle-hold of English Composition, Algebra, Latin and Ancient History.

Throughout the nation, Physical Geography has practically disappeared from the high school curriculum. The kernel of this subject has been absorbed by General Science, Physics and the other high school sciences, or it has worked its way up to where it belongs—in the college. One of the best evidences of this statement is the fact that none of the great publishing houses are bringing out any new high school books in the field.

It is indeed a gratifying thing to see that practically two-thirds of all our four-year high schools offer General Science. In practically every state it has supplanted Physical Geography in the freshman year.

It is the hope of the writer that at our next text-book adoption, Biology will take the place of Botany and Zoology.

*Bulletin 1916, No. 8 U. S. Bureau of Education.

As separate studies, these, too, have worked their way gradually up into the college, and have been replaced by Biology. In discussing this question, a recent bulletin* from the State Department of Education of Texas, has this to say, which is a very clear statement of the condition:

> Botany and Zoology as separate high-school courses are apparently disappearing from the high-school curriculum. Only 1.4% of the Texas high school enrollment in the year 1915-1916 studied the subject of botany, while less than half this number were enrolled in zoology courses (.58%). The reports of the United States Commissioner of Education show that from the years 1910 to 1915 the percentage enrollment in high-school botany fell off 45% and in high-school zoology 59%. The question naturally arises whether we should attempt to revive the subjects, and aid them in their struggle for existence or let them take the course that geology and astronomy have taken. It should be stated here, however, that the value of botanical and zoological truths are not any the less appreciated; but the decreased interest in botany and zoology as special whole-year courses is due rather to the belief of many educators that the wanted biological truths are approached and more sanely comprehended through the *general biology course*. It is held by these educators that the function of botany is not to give knowledge about plants and plant activities, nor is that of zoology to give knowledge about animals and animal activities, but on the other hand, the educational function of both is to develop an appreciation of the principles of *life*—to give a knowledge of life and life activities. These life processes are neither botanical nor zoological—being peculiar neither to plants nor animals. They are biological and are, therefore, best presented in a course in general biology. This is the viewpoint of the majority of present writers and leaders in educational matters. Of course there are science men who disagree, claiming that the scheme is unscientific and that it is impossible to compound two distinct sciences—that the combination is an unsavory mixture, and that it is but a futile attempt of the uninitiated to make science easy and popular. Be this as it may, the fact remains that botany and zoology are disappearing as separate one-year high-school subjects. They are being crowded out by biology and agriculture just as physical geography and human physiology are being crowded out by the newer subject of general science.

*Bulletin 85, February 15, 1919, entitled The Teaching of Science.

A whole bulletin would be required if we discussed fully the subject of vocational education. Space will permit of only a few statements. It is evident that any kind of vocational work is practically unknown anywhere in these high schools except in the four-year schools, and that it is of minor importance there. For example, table XXI shows that there were in 1919-20 in 63 of these four-year high schools 1569 pupils altogether taking any kind of vocational work, while there were 3433 pupils taking Algebra, 1831 taking Ancient History and 2404 taking Latin. This ratio would be very much more against vocational work if we had the figures for the present year. This financial crisis we are facing in our schools has hit hardest the vocational subjects.* As best the writer can ascertain, a very large per cent of the high schools this year have had to drop temporarily some or all of their work in Manual Training and Home Economics. They plan, of course, to reinstate them as soon as finances will permit.

The financial pressure mentioned above has had like effect upon Music and Drawing in our schools. It is little short of an educational tragedy that we have had to strip our schools of the vocational and avocational studies, and thus leave only the traditional academic course. The struggle for the past quarter of a century has been to get this work going, with the hope that it would add the leaven to the whole lump. No critical student of our high school can fail to realize that we are woefully lacking when it comes to training our pupils in the things which function in the development of the artistic and emotional side of their lives.

So far teacher-training is a failure in the high schools of the state. The movement has long since passed out of the experimental stage in America. It is recognized in many states as a satisfactory way of supplying teachers temporarily for the elementary grades. If it is properly organized it works to an advantage. If we would recast the present law in this state so as to properly organize and finance these teacher-training departments and place them only in the good, strong high schools, so as to certificate for one or two years the graduates of these departments, we would go a long ways toward eliminating this court-house examination system now in vogue which is so very unsatisfactory. In this way, in a

*This does not apply to the Smith-Hughes work.

few years, we would be feeding into our elementary grades teachers who would be high school graduates with a little professional training, instead of the teacher who has crammed for an examination, which is neither a test of scholarship nor of professional insight.

On the whole, the Florida high school course of study is overwhelmingly classical and traditional. The whole affair looks to college entrance rather than to occupational pursuits. No one questions the fact that *one* of the functions of the modern high school is preparation for college entrance, but it is *only one* of its numerous functions. If all our boys and girls who go to high school eventually went to college, perhaps no criticism could be made of our present practices, but they do not. To throw some light on this situation, table XXII has been prepared. In these percentages some allowance has to be made, since we are figuring the number of graduates of June 1920 on the basis of February 1921 enrollment. The same thing is true of the per cent going to college. This, however, is not enough to make any material difference. The table follows.

TABLE XXII

Showing the Percentage of High School Enrollment Eventually Graduating and Going to College

Kind of School	No. of Schools	Total Enrollment	Number Graduates the June Previous				Number Previous June Graduates Away in College Following Year			
			Boys	Girls	Total	Per Cent	Boys	Girls	Total	Per Cent
4-Year	98	12095	485	847	1332	11	266	351	617	5.1
36 Southern Assn. Schools	36	7234	314	594	908	12.6	186	252	438	6.1

From table XXII we see that of the 12095 pupils in the 98 four-year high schools only about 11 or 12 per cent will eventually graduate and only about 5 or 6 per cent will eventually find their way to college. That forces us to face squarely this question: Which shall we train, the 5 or the 95? In order to be sure of preparing the 5 shall we force all pupils through the narrow curriculum looking only to college entrance? The task and objective of the modern high school is to prepare

both groups without sacrificing either. It is most certainly the duty of the modern high school to prepare the 5 to enter the higher institutions of learning, but it is likewise its duty to feed the 95 into their life-occupations with some helpful training. It is for this reason that the writer feels justified in saying that on the whole the high school course of study is too classical and traditional to serve the best interests of all its pupils. The 76 one, two and three-year high schools are just the skeletons of real modern high schools. All the pupils get in these schools is formal English, formal mathematics, foreign language, the traditional history course and a modicum of science usually taught without any laboratory or equipment.

The teacher is not to be blamed and the pupil is to be pitied. They are both the victims of the system. It is utterly impossible and worse than foolish for one teacher to try to teach two full years of high school work or for two teachers to try to carry a full four-year high school course. Failure is the inevitable outcome. Then what is the solution? For Florida, as for the rest of the country, the only solution is the junior-senior high school. Not the two and four-year high schools as we use these terms in the state, but the modern junior high school or the six-three-three plan. Instead of one teacher trying to carry a two or three-year high school course, or two teachers a three or four-year course, we should attempt less and do more. Instead of these one, two and three-year high schools offering a narrow curriculum of the traditional type, they should organize a real Junior High School consisting of grades 7, 8 and 9, and then transport their graduates to some centrally located point for their Senior High School work in grades 10, 11 and 12. Instead of having a large number of aspiring high schools with one teacher seeking to do two or three years' work, we should have a series of well organized Junior High Schools of grades 7, 8 and 9, attempting less number of grades, but offering a greater variety of work in each grade. Thus, by attempting a less number of years of work, they would be enabled to offer a wider, richer, fuller curriculum which would meet the needs of the 95 as well as the 5.

The Junior High School Movement has already found its way into Florida, in a number of the schools. Tampa, so far,

has made further strides along this line than any other place in the state. It has two Junior High Schools that are an honor to the city. In these schools we see many of the essential features of the Modern Junior High School in practice. Of course, they do not have, as yet, all that we would like to see them have, but they are moving out in the right direction. It is not best, in a new movement, to jump full fledged into an organization. There are always some "first steps." Evolution, rather than revolution, is usually desirable. Perhaps they have done about all that is possible under the present state organization. Development along certain lines is well nigh impossible until we get a change in the state organization and control of the high school in such matters as course of study, textbooks and graduation requirements. It is for this reason that so much depends on the textbook adoption, which occurs soon. If regulations can be made so as to have textbooks adopted on two bases; namely, the 8-4 plan and the 6-3-3 plan, we will open up the way for greater progress. That kind of a scheme would allow the more progressive schools to organize their work on the Junior-Senior basis without violating the regulations of the higher authorities, or losing their places on the accredited list. The following will show some of the innovations that Tampa has adopted. By putting the Foreign Languages, Algebra, Commercial Work, Manual Training and Home Economics, down into the 7th and 8th grades; by finding a place in their curriculum for the physical and artistic development of the pupils; by instituting departmental teaching, promotion by subjects, mid-year promotions, etc., they are cautiously and sanely inaugurating the real Junior High School movement, which means a new day in secondary education. Their results speak for themselves and are the final test. While Tampa's population increased from 37,000 to 51,000 her high school enrollment increased 4½ times, and the number of her graduates 5¾ times. This indicates somewhat the power to draw, as well as the power to hold the students in the high school during the adolescent period, and this is one of the chief reasons for which the Junior High School movement was instituted.

UNIVERSITY OF FLORIDA

College of Law

GAINESVILLE

THIRTEENTH
ANNUAL ANNOUNCEMENT

1921-1922

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5. The Teachers' College confers the degrees of B.S. and B.A. in philosophy and education and provides normal training for those desiring to enter any department of the public school service. State certificates are granted to Normal School and Teachers' College graduates without further examination. The leading teachers' college in this territory. $40,000 gift from the Peabody Board for the building occupied by this college.

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7. The Agricultural Experiment Station.

8. The University Extension Division.

For catalog or further information address

A. A. MURPHREE, LL.D., President
University of Florida, Gainesville, Fla.

UNIVERSITY CALENDAR

1921-1922

1921—June 20, *Monday*	Summer School begins.
August 12, *Friday*	Summer School ends.
September 12, *Monday*	Summer Recess ends. Examination for Admission. Registration of Students.
September 13, *Tuesday*	First Semester begins.
September 26, *Monday*	School for County Demonstration Agents begins.
October 1, *Saturday, 2:00 p. m.*	Re-examinations.
2:30 p. m.	Meeting of General Faculty.
October 4, *Tuesday*	Citrus Seminar begins.
October 6, *Thursday*	Livestock Roundup begins.
November 24, *Thursday*	Thanksgiving Holiday.
December 16, *Friday, 12:00 noon*	Christmas Recess begins.
December 31, *Saturday*	Christmas Recess ends.
1922—January 2, *Monday, 8:00 a. m.*	Resumption of Classes. Review Courses for Teachers begin.
January 3, *Tuesday*	Ten-Day Courses for Farmers begin.
January 28, *Saturday*	First Semester ends.
January 30, *Monday*	Second Semester begins.
February 11, *Saturday, 2:30 p. m.*	Meeting of General Faculty.
March 4, *Saturday, 2:00 p. m.*	Re-examinations.
May 27, *Saturday, 2:30 p. m.*	Meeting of General Faculty.
May 28 to 30	Commencement Exercises.
May 28, *Sunday*	Baccalaureate Sermon.
May 29, *Monday*	Oratorical Contests. Annual Alumni Meeting. Class-Day Exercises.
May 30, *Tuesday*	Graduating Day.
May 31, *Wednesday*	Summer Recess begins.
June 12, *Monday*	Summer School begins.

The date for the Boys' Club Week will be announced later.

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Three classes of men should read law—the lawyer for his profession, the business man for business reasons, and every man for increased efficiency and his own protection.—*Blackstone.*

HISTORY

Largely thru the influence of Hon. Nathan P. Bryan, then a member of the Board of Control, the College of Law was established in 1909. From this time until 1917 the course comprised the work of two years. With the session of 1917-18 the present three-year course was inaugurated.

At first the College was quartered in Thomas Hall, one of the dormitories. At the opening of the session of 1913-14 more spacious rooms were provided in Language Hall. During the following summer and fall the present structure was erected and on Thanksgiving Day, 1914, the College, with fitting ceremonies, took possession of its own home, the finest law school building in the South.

PURPOSE

It is the purpose of the College to impart a thoro, scientific, and practical knowledge of the law, and thus to equip its students to take advantage of the splendid opportunities the present readjustments in business and social life are creating. It aims to develop keen, efficient lawyers, conversant with the ideals and traditions of the profession. Its policy is characterized by the emphasis of practice as well as theory; pleading as well as historical perspective; skill in brief making as well as legal information.

EQUIPMENT

BUILDING.—This splendid structure is one hundred seventy-two feet long, seventy feet wide, and two and one-half stories high. It contains a large, well-lighted library, furnished with bookstacks, library tables, librarian's office, and consultation rooms for students and faculty. It has three commodious lecture-rooms, together with the offices of administration, and the offices of the several resident professors. It contains, also, a handsomely paneled courtroom and auditorium. The courtroom has all the usual accessories, jury box, witness stand, judge's office, and jury room, and is connected with the library below by a circular stairway. Every interest of the College has been provided for, including attractive quarters for the Marshall Debating Society. The building is steam-

heated, lighted by electricity, and equipped thruout with a superior grade of furniture. It is devoted exclusively to the uses of the College of Law and furnishes accommodations as comfortable and as convenient as can be found in the country.

LIBRARY.—The Law Library contains all the published reports of the courts of last resort of every State in the Union and of the Federal Courts, the full English Reprints, the English Law Reports, the reports of the Interstate Commerce Commission and the Land Decisions of the Department of the Interior besides an excellent collection of digests, encyclopedias, series of selected cases, treatises and text books, both English and American. The Library also contains the Statutes of several of the States besides those of the Federal Government, and is a subscriber to the leading legal periodicals. A course of instruction is given in legal bibliography and the use of law books. Every facility also is offered law students to make use of the General Library, in which are included works of interest and information to the lawyer. Both libraries are open during the academic year on every secular day between the hours of 8:00 A. M. and 10:00 P. M. and are in charge of trained librarians, who will render such aid as the students may need in their use of the books.

GYMNASIUM.—A brick and stone structure of two stories and basement, one hundred and six feet long and fifty-three wide. It is steam-heated, supplied with hot water, and well-lighted and ventilated. A gallery around the main floor provides space for spectators at gymnastic exhibitions. The basement contains lockers, shower baths and toilets. Adjacent is a swimming-pool, thirty-six feet long and twenty-four feet wide, and from four and one half to seven feet deep. Organized classes are conducted by the Professor of Physical Culture.

FLEMING FIELD.—A large and well-kept athletic field equipped for the various outdoor games and sports which in this climate are carried on the year round. In 1919 this field was used by the New York Giants for their spring training and in 1921 by the Philadelphia Nationals.

ATTENDANCE

For the session of 1920-21 the College enrolled one hundred fifteen students. Their names are published in the University catalog. Twelve were graduated, receiving the degree of LL.B.

As the dormitories are inadequate, students wishing to stay in them are urged to reserve their rooms at the earliest possible date. Application should be made to Miss W. B. Ellis, Registrar. A deposit of $5.00, which will be credited on fees, must accompany the application.

ADMISSION

REQUIREMENTS FOR ADMISSION.—Graduates and matriculates of colleges and universities and applicants who have completed a high-school course of four years will, upon presentation of proper credentials to that effect, be admitted to the College as candidates for a degree. Other applicants for admission as regular students will be required to pass an entrance examination. No applicant under eighteen years of age will be admitted.

The four-year high-school course required for admission must consist of sixteen units (fifteen units as defined by the Carnegie Foundation or the National Educational Association). A unit represents a course of study pursued thruout the school year with five recitation periods of at least forty-five minutes each per week, four courses being taken during each of the four years.

Eight units are prescribed; viz.: English 3; Mathematics 3; History 1; Science 1. The remaining units may be chosen from the following electives: Botany ½ or 1; Chemistry 1; English 1; Latin 4; History 2; Mathematics 1; Modern Languages (French, German, or Spanish) 2; Physical Geography 1; Physics 1; Zoology ½ or 1; vocational subjects (Typewriting, Stenography, Mechanic Arts, Agriculture, etc.) 4.

Certificates of scholastic record signed by the principal of the school attended must be presented by all those who do not enter by examination. Blank forms, conveniently arranged for the desired data, will be sent upon application.

SPECIAL STUDENTS.—Persons over twenty-one years of age who are not able to qualify as regular students may be admitted as special students upon presenting satisfactory evidence that they have received such training as will enable them to make profitable use of the opportunities offered in the College. The admission of such students, however, is not

encouraged, and their number is restricted to not more than twenty-five per cent of the law enrolment.

ADVANCED STANDING.—No work in law done in other institutions will be accepted towards a degree, unless the applicant passes satisfactorily the examinations held in the subjects in question in this College, or unless, by special vote of the Faculty, credit is given without examination. Credit for work not meeting the requirements of the Association of American Law Schools, of which this College is a member, will not be accepted. The admission requirements of any school from which credit will be received must be shown definitely by its catalog to be not less than fifteen high-school units. Where a school is known to have made relaxing departures from its published entrance requirements or course of study, the acceptance of credit from such institution will not be considered. In no case will credit be given for work not done in residence at an approved law school.

EXPENSES

The yearly expenses of a law student, exclusive of incidentals, may be summarized as follows:

Tuition	$40.00
Registration Fee	10.00
Student Activity Fee	15.00
Damage Fee	5.00
Infirmary Fee	3.00
Board and Lodging	180.00
Books (about)	50.00
	$303.00

Tuition is payable in advance, $20.00 each semester. Students taking less than eleven hours of work are charged a proportionate part of the full tuition.

A diploma fee of ten dollars ($10.00), payable on or before April 1st of the year of graduation, is charged all candidates for degrees.

Students are urged to provide themselves with the Statutes of their state and a law dictionary. These books will form a nucleus for the student's future library, and by the purchase of second-hand books the cost may be materially reduced.

The charge for board, lodging and janitor service is payable in advance, $90.00 per semester, exclusive of the Christmas vacation. No refund will be made for less than a month's absence. When not engaged by the semester, board and lodging will be furnished at $24.00 per month.

Board without lodging will be furnished at the rate of $20.00 per calendar month, payable in advance. No part of this sum will be refunded.

For more detailed statements reference is made to the University catalog, pp. 35-38.

UNIVERSITY PRIVILEGES

ELECTIVES IN OTHER COLLEGES.—The advantages of the other colleges of the University are open to such students in the College of Law as desire and are able to accept them. Courses in History, Economics, Sociology, Psychology, Logic and English are particularly recommended. No extra charge is made for such courses, but they can be taken only with the consent of the Law Faculty and of the professors concerned.

MILITARY SCIENCE AND TACTICS.—The University has an Infantry Unit, Senior Division of the Reserve Officers' Training Corps, to membership in which law students are eligible. They are not required, however, to join this organization or to take any other military drill.

PUBLIC SPEAKING AND DEBATING

INSTRUCTION.—Regular classes in oratory and public speaking are organized and conducted by the professor of public speaking. A small tuition is charged.

MARSHALL DEBATING SOCIETY.—Early in the first year of the College the students organized a society that would secure to its members practice in debating and public speaking and experience in arguing legal questions, as well as drill in parliamentary law. The society was fittingly named "The Marshall Debating Society", in honor of the distinguished Southern jurist, John Marshall.

DEGREES

BACHELOR OF LAWS.—The degree of Bachelor of Laws (LL.B.) is conferred upon those students who satisfactorily complete ninety semester hours in the course of study. Students admitted to advanced standing may receive the degree

after one year's residence, but in no case will the degree be granted unless the candidate is in actual residence during all of the third year.

JURIS DOCTOR.—Students who have complied with all the requirements for the degree of Bachelor of Laws (LL.B.), who have maintained an average standing in their law studies of 10% above the passing mark, and who have obtained the degree of A.B., or an equivalent degree, from an approved College or University, or who secure such degree the same year they complete their law course, will be awarded the degree of Juris Doctor (J.D.).

COMBINED ACADEMIC AND LAW COURSE.—By pursuing an approved course of collegiate and law studies a student may earn both the academic and the legal degree in six years. Candidates for either the A.B. or the B.S. degree may elect twelve hours of work from the first year of the course of the College of Law and count the same as credits toward the aforesaid degrees. Such degrees will not be conferred, however, until after the completion of the second year of the law work.

MASTER OF ARTS.—Candidates for the degree of Master of Arts are permitted to take a portion of their work under the Faculty of Law.

ADMISSION TO THE BAR

Upon presenting their diplomas, duly issued by the proper authorities, and upon furnishing satisfactory evidence that they are twenty-one years of age and of good moral character, the graduates of the College are licensed by the Supreme Court, without examination, to practice in the Courts of Florida. They also are admitted without examination to the United States District Court for the Northern District of Florida.

EXAMINATIONS

The last week of each semester is devoted to examinations covering the work of the semester. These examinations are in writing and are rigid and searching, but are not necessarily final.

A delinquent examination is allowed for the removal of conditions, except in subjects where the semester grade falls below 60. All students, unless excused by the Dean, must

present themselves for the regular examination in all the subjects for which they are registered.

Students failing to secure passing semester grades in less than fifty per cent of the number of hours of work taken are ineligible to continue in the College unless reinstated by the Faculty for cause shown.

LECTURES

In addition to the courses given by the regular Faculty, lectures are given each year by eminent specialists in the profession, both at the bar and on the bench. The Justices of the Supreme Court of the State especially have been generous in giving of their time and services in this way. Both Faculty and students feel exceedingly grateful to these lecturers for the kindly interest they have manifested in the College and for the resulting uplift and inspiration.

PLEADING AND PRACTICE

COURSES.—Differing from some other law schools, this College is convinced that an intensive knowledge of pleading and practice should be secured by the student, since legal rights cannot be well understood without a mastery of the rules of pleading whereby they are enforced. As Lord Coke declared: "Good pleading is the touchstone of the true sense and knowledge of the common law." The development of right has depended upon the development of actions; the rule of law was the rule of writs and in large measure remains so today. Consequently the College offers thoro courses in Criminal Pleading and Procedure, Common Law Pleading, Equity Pleading, Code Pleading, Florida Civil Practice, General Practice, and Federal Procedure. Thus the student on graduation is enabled to enter understandingly upon the practice of law; and to this fact the College attributes much of the rapid advancement of its Alumni.

As young men from all parts of the country in increasing numbers are attending the University, combining the advantages of travel, new associations, and salubrious climate with those of the superior educational facilities here afforded, the College has arranged to serve those who intend to practice elsewhere as efficiently as those who expect to locate in this State. Students preparing for the practice in other states are

offered Code Pleading and General Practice instead of Florida Constitutional Law and Florida Civil Practice, as shown in the course of study. Such students also are required to submit an acceptable dissertation showing the peculiarities of pleading and practice of the State in which they expect to locate.

THE PRACTICE COURT.—Believing the students obtain in the Practice Court a better practical knowledge of pleading and practice than can be acquired in any other way, aside from the trial of actual cases, the Faculty lay special emphasis upon this work. Sessions of the Practice Court are held thruout the year in an admirably equipped courtroom. A clerk and a sheriff are appointed from the Senior class, and regular records of the court are kept. Each student is required to participate in the trial of at least one common law, one equity, and one criminal case, and is instructed in appellate procedure. The Practice Court is conducted by Professors Cockrell and Crandall.

CURRICULUM*

FIRST YEAR

FIRST SEMESTER

TORTS.—History and definitions; elements of torts; conflicting rights; mental anguish; parties to tort actions; remedies; damages; conflict of laws; methods of discharge; comprehensive study of particular torts: false imprisonment, malicious prosecution, abuse of process, conspiracy, slander and libel, trespass, conversion, deceit, nuisance, negligence, and others. Textbooks: Burdick on Torts and Burdick's Cases on Torts, 3rd edition. *(5 hours. Professor Trusler.)*

CONTRACTS I.—Formation of contract; offer and acceptance; form and consideration; reality of consent; legality of object; operation of contract; limits of the contract obligation; assignment of contract; joint obligations; interpretation of contract. Textbooks: Anson's Law of Contract, Corbin's Edition; Huffcut and Woodruff's Cases on Contract. *(4 hours. Professor Moore.)*

CRIMINAL LAW.—Sources of criminal law; nature and

*The texts announced are subject to change and some alternation of courses may be necessary, but assurance is given that few changes will be made.

elements of crime; criminal intent; insanity; intoxication; duress; mistake of fact or law; justification; parties in crime; offenses against the person, habitation, property, public health and morals, public justice and authority, government, and the law of nations. Textbook: Clark on Criminal Law, 3rd edition; selected cases. *(2 hours. Professor Cockrell.)*

CRIMINAL PROCEDURE.—Jurisdiction; arrest; preliminary examination and bail; grand jury, indictment and information and their sufficiency in form and substance; arraignment, pleas, and motions; *nolle prosequi* and motions to quash; jeopardy; presence of defendant at the trial; verdict; new trial; arrest of judgment; judgment, sentence, and execution. Textbook: Clark's Criminal Procedure, 2nd edition; selected cases. *(2 hours. Professor Cockrell.)*

PROPERTY I.—Personal property; possession and rights based thereon; acquisition of title; liens and pledges; conversion. Textbook: Warren's Cases on Property. *(2 hours. Professor Crandall.)*

SECOND SEMESTER

EQUITY JURISPRUDENCE.—History and definition; jurisdiction; maxims; accident, mistake, fraud; penalties and forfeitures; priorities and notice; bona fide purchasers; estoppel; election; satisfaction and performance; conversion; equitable estates, interest, primary rights; trusts; powers, duties, and liabilities of trustees; mortgages; equitable liens; assignments; specific performance; injunction; reformation; cancellation; cloud on titles; ancillary remedies. Textbook: Eaton on Equity; selected cases. *(5 hours. Professor Trusler.)*

CONTRACTS II AND QUASI CONTRACTS.—Rules relating to evidence and construction; discharge of contract. Origin and nature of quasi contract; benefits conferred in misreliance on rights or duty, from mistake of law, and on invalid, unenforceable, illegal, or impossible contract; benefits conferred thru dutiful intervention in another's affairs; benefits conferred under constraint; action for restitution as alternative remedy for breach of contract and for tort. Textbooks: Anson's Law of Contract, Corbin's Edition; Woodruff's Cases on Quasi Contracts. *(3 hours. Professor Moore.)*

MARRIAGE AND DIVORCE.—Marriage in general; nature of the relation; capacity of parties; annulment; divorce; suit, jurisdiction, grounds; defenses; alimony; effect on property

rights; custody and support of children; agreements of separation. Textbook: Vernier's Cases on Marriage and Divorce. *(1 hour. Professor Cockrell.)*

COMMON LAW PLEADING.—History and development of the personal actions at common law; theory of pleading and its peculiar features as developed by the jury trial; demurrers, general and special; pleas in discharge, in excuse, and by way of traverse; replication *de injuria;* duplicity; departure; new assignment; motions based on pleadings; general rules of pleadings. Textbook: Andrews' Stephen's Common Law Pleading. *(3 hours. Professor Crandall.)*

SALES.—Sale and contract to sell; statute of frauds; illegality; conditions and warranties; delivery; acceptance and receipt; vendor's lien; stoppage *in transitu;* bills of lading; remedies of seller and buyer. Textbook: Burdick on Sales, 3rd edition; selected cases. *(1 hour. Professor Moore.)*

PROPERTY II.—Introduction to the law of conveyancing; rights incident to the ownership of land, and estates therein, including the land itself, air, water, fixtures, emblements, waste; profits; easements; licenses; covenants running with the land. Textbook: Warren's Cases on Property. *(2 hours. Professor Crandall.)*

SECOND YEAR

FIRST SEMESTER

UNITED STATES CONSTITUTIONAL LAW.—General principles; distribution of governmental powers; congress; the chief executive; the judiciary; police powers; eminent domain; checks and balances; guarantee of republican government; civil rights; political privileges; guarantee in criminal cases; impairment of contractual obligations. Textbook: Hall's Cases on Constitutional Law, American Casebook Series. *(4 hours. Professor Kline.)*

AGENCY.—Nature of the relation; purposes and manner of creation; who may be principal or agent; ratification; delegation of authority; general and special agents; rights and duties of agents; termination, nature, extent, construction, and execution of authority of agents; rights, duties, and liabilities of agents; principal and third persons *inter se;* particular classes of agents. Textbooks: Mechem's Outlines of Agency and Mechem's Cases on Agency. *(2 hours. Professor Moore.)*

EQUITY PLEADING.—Nature and object of pleadings in equity; parties to a suit in equity; proceedings in a suit in equity; bills in equity; disclaimer; demurrers and pleas; answer and replication; preparation of bills, demurrers, pleas, answers. Textbooks: Fletcher's Equity Pleading and Practice; Rules of the Circuit Court in Chancery in Florida; Rules of the Federal Court; Statutes of Florida. *(3 hours. Professor Cockrell.)*

BRIEF MAKING AND THE USE OF LAW BOOKS.—Where to find the law; how to use statutes and decisions; how to find the law; the trial brief; the brief on appeal and its preparation. Textbook: Cooley's Brief Making and the Use of Law Books. *(1 hour. Professor Crandall.)*

PROPERTY III.—Titles and conveyancing, including acquisition of titles by possession, modes of conveyance at common law, under the statute of uses, and by statutory grant; the execution of deeds; estates created; covenants for titles; estoppel by deed; priorities among titles. Textbook: Aigler's Cases on Property. *(3 hours. Professor Crandall.)*

FLORIDA CONSTITUTIONAL LAW.*—Declaration of rights; departments of government; suffrage and eligibility; census and apportionment; counties and cities; taxation and finance; homestead and exemption; married women's property; education; public institutions; miscellaneous provisions. Textbooks: Constitution, statutes, and judicial decisions of Florida. *(2 hours. Professor Trusler.)*

CODE PLEADING.**—Changes introduced by the codes; forms of action; necessary allegations; the complaint; prayer for relief; answers, including general and special denials; new matter; equitable defenses; counter claims; pleading several defenses; replies and demurrers. Textbook: Pomeroy's Code Remedies. *(2 hours. Professor ————.)*

SECOND SEMESTER

EVIDENCE.—Judicial notice; kinds of evidence; burden of proof; presumptions of law and fact; judge and jury; best evidence rule; hearsay rule and its exceptions; admissions; confessions; exclusions based on public policy and privilege; corroboration; parol evidence rule; witnesses; attendance in

*For students intending to practice in Florida.
**For students not intending to practice in Florida.

court; examination, cross examination, privilege; public documents; records and judicial writings; private writings. Textbook: Greenleaf on Evidence, 16th edition, vol. 1; selected cases. *(4 hours. Professor Cockrell.)*

PRIVATE CORPORATIONS.—Nature; creation and citizenship; defective organization; promotors; powers and liabilities; corporations and the State; dissolution; membership; management; creditors; foreign corporations; practice in forming corporations, preparing by-laws, electing officers, and in conducting corporate business. Textbooks: Clark on Private Corporations, and Wormser's Cases on Corporations. *(4 hours. Professor Moore.)*

LEGAL ETHICS.—Admission of attorneys to practice; taxation; privileges and exemptions; authority; liability to clients and to third parties; compensation; liens; suspension and disbarment; duties to clients, courts, professional brethren, and to society. Textbooks: Attorneys at Law in Ruling Case Law and the Code of Ethics adopted by the American Bar Association. *(1 hour. Professor Trusler.)*

PROPERTY IV.—History of the law of wills and testaments; testamentary capacity and intent; kind of wills and testaments; execution, revocation, republication, revival of wills; descent; probate of wills and the administration of estates. Textbook: Costigan's Cases on Wills. *(3 hours. Professor Crandall.)*

FLORIDA CIVIL PRACTICE.* — Organization of courts; parties; joinder and consolidation of actions; issuance, service, and return of process; appearance; trial; verdict; proceedings after verdict; appellate proceedings; peculiar characteristics of the common law actions; special proceedings including certiorari, mandamus, prohibition, quo warranto, habeas corpus, attachment, garnishment, statutory liens, forcible entry and detainer, landlord and tenant. Textbook: Crandall's Florida Civil Practice. *(3 hours. Professor Cockrell.)*

GENERAL CIVIL PROCEDURE.**—The court; parties; forms of action; the trial; selection of jury and procedure in jury trial; judgment; execution; appeal and error. Textbook: Loyd's Cases on Civil Procedure. *(3 hours. Professor———.)*

*For students intending to practice in Florida.
**For students not intending to practice in Florida.

THIRD YEAR

FIRST SEMESTER

INSURANCE.—Theory, history, significance; insurable interest; concealment, representations, warranties; subrogation; waiver and estoppel; assignees, beneficiaries; creditors; fire, life, marine, accident, guarantee, liability insurance. Textbooks: Humble's Law of Insurance and Humble's Cases on Insurance. *(1 hour. Professor Trusler.)*

PUBLIC SERVICE CORPORATIONS.—Nature of public utilities; railroads and other common carriers of goods and passengers; telegraphs and telephones; light and water companies; inns; warehouses; elevators; stockyards; methods of incorporation; public control; rights and obligations at common law and under federal and state statutes. Textbook: Wyman's Cases on Public Service Companies, 3rd edition. *(2 hours. Professor Moore.)*

FEDERAL PROCEDURE AND BANKRUPTCY.—System of courts created under the authority of the United States, jurisdiction of the several courts and procedure therein; Federal and state bankruptcy legislation; who may become bankrupt; prerequisites to adjudication; receivers; trustees; provable claims; exemptions; composition; discharge. Textbooks: Hughes on Federal Procedure, and Remington on Bankruptcy, Students' Edition. *(3 hours. Professor ————.)*

PARTNERSHIP.—Creation, nature, characteristics of a partnership; nature of a partner's interest; nature, extent, duration of the partnership liability; powers of partners; rights, duties, remedies of partners *inter se;* rights and remedies of creditors; termination of partnership. Textbook: Mechem on Partnership, 2nd edition; selected cases. *(2 hours. Professor Moore.)*

ADMIRALTY.—Jurisdiction; contracts, torts, crimes; maritime liens, ex contractu, ex delicto, priorities, discharge; bottomry and respondentia obligations; salvage; general average. Textbook: Hughes on Admiralty. *(1 hour. Professor ————.)*

PROPERTY V.—Conditional estates; licenses and waivers; reversions and remainders; rule in Shelley's Case; future uses; future interests; executory devises and bequests; vesting of

legacies; cross limitations; gifts; failure of issue; determination of classes; powers; rule against perpetuities; restraints on alienation. Textbook: Kales' Cases on Future Interests. *(3 hours. Professor Crandall.)*

MORTGAGES.—Nature; elements; incidents of the relation; discharge; assignment; redemption; foreclosure; injunction and account; extent of the lien; priority between mortgage liens and competing claims; equity of redemption. Textbook: Durfee's Cases on Mortgages. *(2 hours. Professor Cockrell.)*

PRACTICE COURT.—*(1 hour.)*

SECOND SEMESTER

DAMAGES.—General principles; nominal; compensatory; exemplary; liquidated; direct and consequential; proximate and remote; general and special; measure in contract and tort actions; entire damages in one action; mental suffering; avoidable consequences; value; interest; lateral support; counsel fees and expenses of litigation; injuries to real property and limited interests; death by wrongful act; breaches of warranty. Textbook: Rogers' Law of Damages; selected cases. *(2 hours. Professor Trusler.)*

MUNICIPAL CORPORATIONS.—Creation of cities and towns; powers of a municipality, including public powers, power of taxation, power over streets and alleys, etc.; obligations and liabilities of municipal corporations; powers and liabilities of officers. Textbook: Elliott on Municipal Corporations, 2nd edition. *(1 hour. Professor Cockrell.)*

SURETYSHIP.—Nature of the contract; statute of frauds; surety's defenses against the creditor; surety's rights, subrogation, indemnity, contribution, exoneration; creditor's rights to surety's securities. Textbook: Spencer on Suretyship. *(2 hours. Professor Kline.)*

NEGOTIABLE INSTRUMENTS.—Law merchant; definitions and general doctrines; contract of the maker, acceptor, certifier, drawer, indorser, vendor, accommodater, assurer; proceedings before and after dishonor of negotiable instruments; absolute defenses; equities; payments; conflict of laws. Textbook: Bigelow on Bills, Notes and Cheques. *(2 hours. Professor Moore.)*

CONFLICT OF LAWS.—Jurisdiction; sources of law and comity; territorial jurisdiction; jurisdiction in rem and in

personam; remedies, rights of action, procedure; creation of rights; property rights; personal rights; inheritance; obligations ex delicto and ex contractu; recognition and enforcement of rights; personal relations; property; inheritance; administration of estates; judgments and obligations. Textbook: Minor on the Conflict of Laws. *(2 hours. Professor ———.)*

INTERNATIONAL LAW.—Nature, subjects, and objects of international law; intercourse of states; settlement of international differences; law of war; law of neutrality. Textbook: Hershey's Essentials of International Public Law; selected readings. *(1 hour. Professor ————.)*

TRUSTS.—The Anglo-American system of uses and trusts; creation, transfer, extinguishment of trust interests; priorities between competing equities; construction of trust dispositions; charitable trusts. Textbook: Kenneson's Cases on Trusts. *(2 hours. Professor Kline.)*

JUDGMENTS.—Nature and essentials; kinds; record; vacation; amendment; modification; satisfaction. Textbooks: Rood on Judgments and Rood's Cases on Judgments. *(2 hours. Professor Crandall.)*

PRACTICE COURT.—*(1 hour.)*

Those who desire further information concerning the College may address letters of inquiry to Harry R. Trusler, Dean of the College of Law, Gainesville, Florida.

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